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Harrisburg, PA

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March 3, 1849

Water Resources Data for Pennsylvania

Volume 1. Delaware River Basin

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT PA-79-1

WATER YEAR 1979

Prepared in cooperation with the Pennsylvania
Department of Environmental Resources,
the Philadelphia Water Department and with other
State, municipal, and Federal agencies

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UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

H. W. Menard, Director

For additional information write to
District Chief, Water Resources Division
U.S. Geological Survey
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Harrisburg, Pennsylvania 17108

1980

PREFACE

This report was prepared by personnel of the Pennsylvania District of the Water Resources Division of the U.S. Geological Survey under the supervision of David E. Click, District Chief, and J.E. Biesecker, Regional Hydrologist, Northeastern Region. It was done in cooperation with the State of Pennsylvania and with other agencies.

This report is one of a series issued State by State. General direction for the series is by Philip Cohen, Chief Hydrologist, U.S. Geological Survey, and Robert J. Dingman, Acting Assistant Chief Hydrologist for Scientific Publications and Data Management.

Data for Pennsylvania are in three volumes as follows:

Volume 1. Delaware River Basin
Volume 2. Susquehanna and Potomac River Basins
Volume 3. Ohio River and St. Lawrence River Basins

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(Letter after station name designates types of data: (d) discharge, (c) chemical, (b) biological, (t) water temperature, (e) elevation, gage height or contents, (s) sediment

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(Letter after station name designates types of data: (d) discharge, (c) chemical, (b) biological, (t) water temperature, (e) elevation, gage height or contents, (s) sediment

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WATER RESOURCES DATA FOR PENNSYLVANIA, 1979

INTRODUCTION

Water resources data for the 1979 water year for Pennsylvania consist of records of discharge and water quality of streams; contents of lakes and reservoirs; and water levels of ground-water wells. This volume contains records for water discharge at 73 gaging stations; contents at 11 lakes and reservoirs; water quality at 39 gaging stations; and water levels at 16 observation wells. Also included are data for 43 crest-stage, 28 low-flow, and 43 water-quality partial-record stations. Locations of these sites are shown on figures 5, 6, 7, 8, and 9. Additional water data were collected at various sites not involved in the systematic data-collection programs and are published as miscellaneous measurements and analyses. These data together with the data in Volumes 2 and 3 represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in Pennsylvania.

Records of discharge and stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from the Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 22202.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published in official Survey reports on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report PA-78-1". For archiving and general distribution, the reports for water years 1971-74 are also identified as water-data reports. These water-data reports are for sale, in paper copy or in microfiche by the National Technical Information Service. U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the district chief at the address given on the back of the title page or by telephone (717) 782-3420.

COOPERATION

The U.S. Geological Survey and organizations of the Commonwealth of Pennsylvania have had cooperative agreements for the systematic collection of surface-water records during the periods 1919-21 and 1931 to date, water-quality records from 1944 to date, and ground-water records from 1925 to date. Organizations that supplied data through cooperative agreement with the Survey are:

State Department of Environmental Resources, Clifford L. Jones, Secretary, through the following: Office of Resources Management, P. S. Duncan, Deputy Secretary; Office of Environmental Protection and regulation, W. B. Middendorf, Deputy Secretary; Bureau of Topographic and Geologic Survey, A. A. Socolow, State Geologist.

State Department of Transportation, Thomas Larsen, Secretary, through the Bureau of Materials Testing and Research, L. D. Sandvig, Director.

Delaware River Basin Commission, G. M. Hansler, Executive Director.

Chester County Water Resources Authority, D. C. Yaeck, Executive Director.

City of Easton, H. J. Schultz, Mayor.

City of Bethlehem, P. M. Marcincin, Mayor.

City of Philadelphia, Water Department, W. J. Marrazzo, Water Commissioner.

Delaware Geological Survey, R. R. Jordan, State Geologist.

Warminster Municipal Authority, Joseph Butch, General Manager.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, in providing records for 48 gaging stations published in this report. Assistance was also furnished by the National Weather Service, NOAA, U.S. Department of Commerce, and the U.S. Environmental Protection Agency.

The following organizations aided in collecting records:

Palmer Water Co.; Pennsylvania Power and Light Co.; Philadelphia Electric Co.; Philadelphia Surburban Water Co.; New Jersey Zinc Co.; Panther Valley Water Co.; and the City of Coatesville.

HYDROLOGIC CONDITIONS

Streamflow during the year was above average across the basin. At the two representative gaging stations for the Delaware River basin, Bush Kill at Shoemakers, PA (01439500), and Schuylkill River at Pottstown, PA (01472000), streamflow was 133 percent and 146 percent, respectively, of the 1941-70 median.

Precipitation for the year was above normal at all index stations. Monthly values at all index stations showed December, January, and September precipitation to be above normal, with January values averaging 297 percent of normal and setting January precipitation records at several of the index stations. Conversely, monthly values at all index stations were below normal November and March, with November values averaging 62 percent of normal.

Bush Kill at Shoemakers, PA, streamflow was above median January, February, March, May, June, August, and September. Streamflow for January, 807 ft^3/s, was the highest for the period of record, 1909-79, surpassing the mean discharge of January 1978. Yearly mean of 290 ft^3/s was fifteenth highest for the period of record and 123 percent of the average for the period 1909-78.

Schuylkill River at Pottstown, PA, was above median every month except November. Streamflow for January, 7,383 ft^3/s, was the highest for the period of record, 1927-79, surpassing the mean discharge of January 1978. Yearly mean of 2,510 ft^3/s was ninth highest for the period of record and 132 percent of the average for the period 1927-78.

Current water year monthly and yearly means are compared with monthly and yearly medians for the period 1941-70 at the two representative gaging stations in figures 1 and 2.

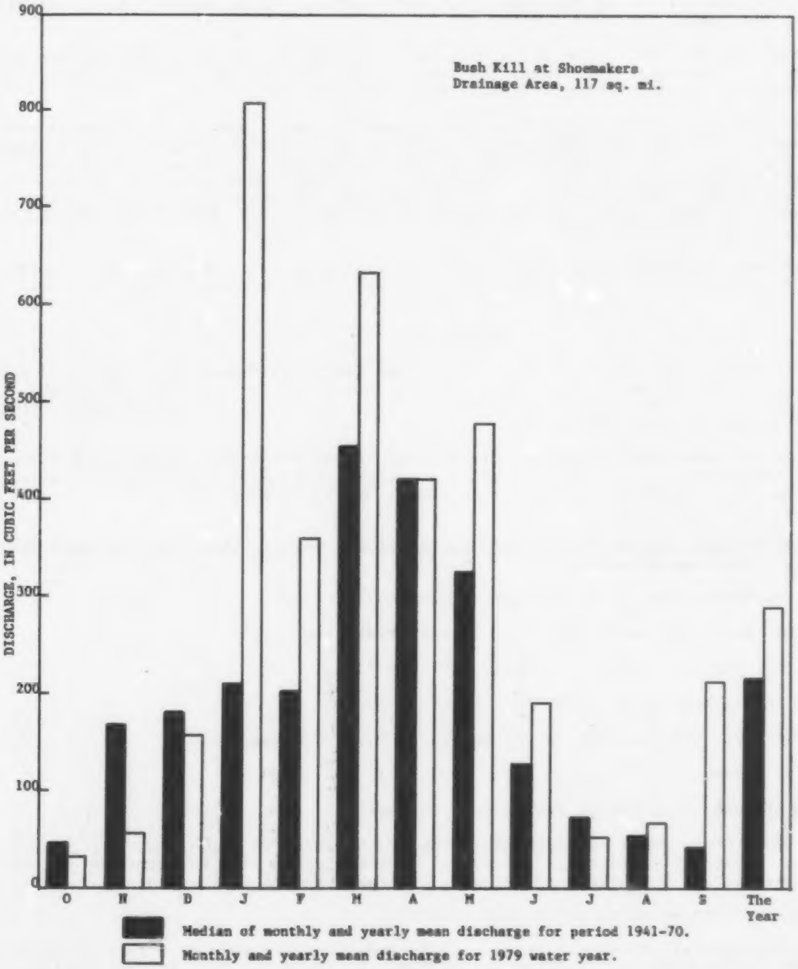

Figure 1.--Comparison of discharge at Bush Kill at Shoemakers during the 1979 water year with median discharge for period 1941-70.

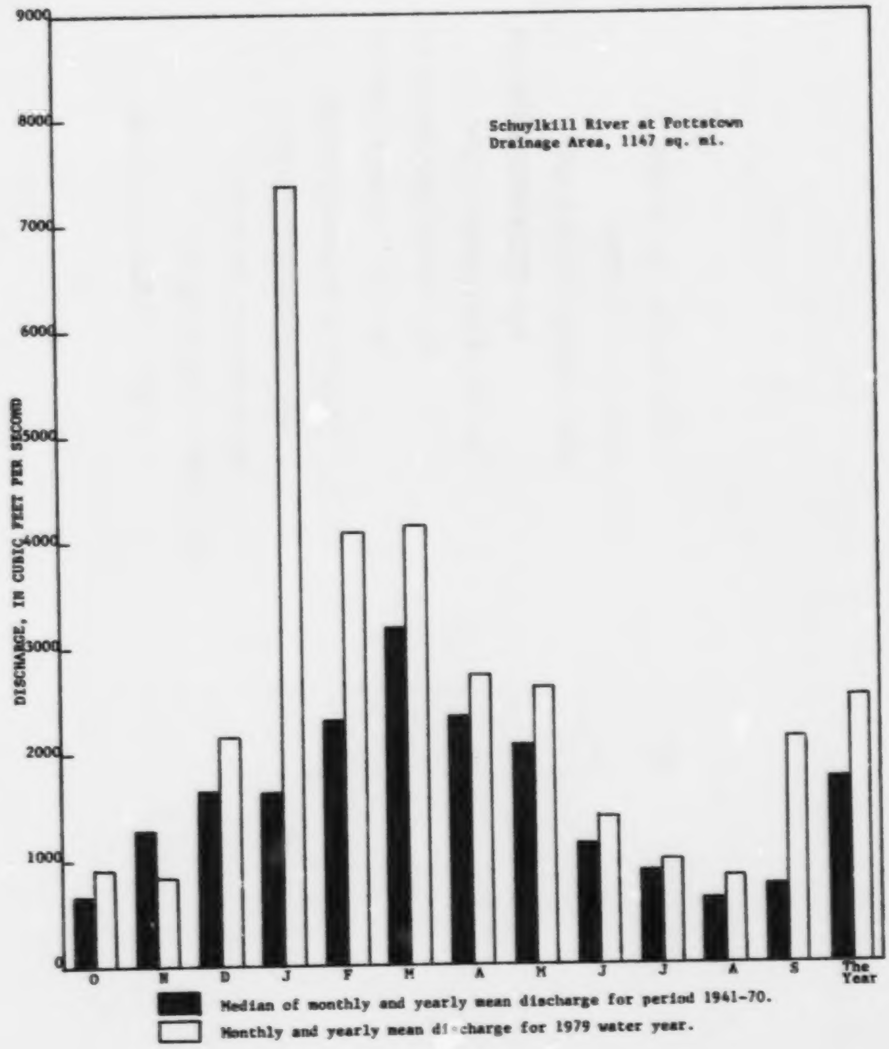

Figure 2.--Comparison of discharge at Schuylkill River at Pottstown during the 1979 water year with median discharge for period 1941-70.

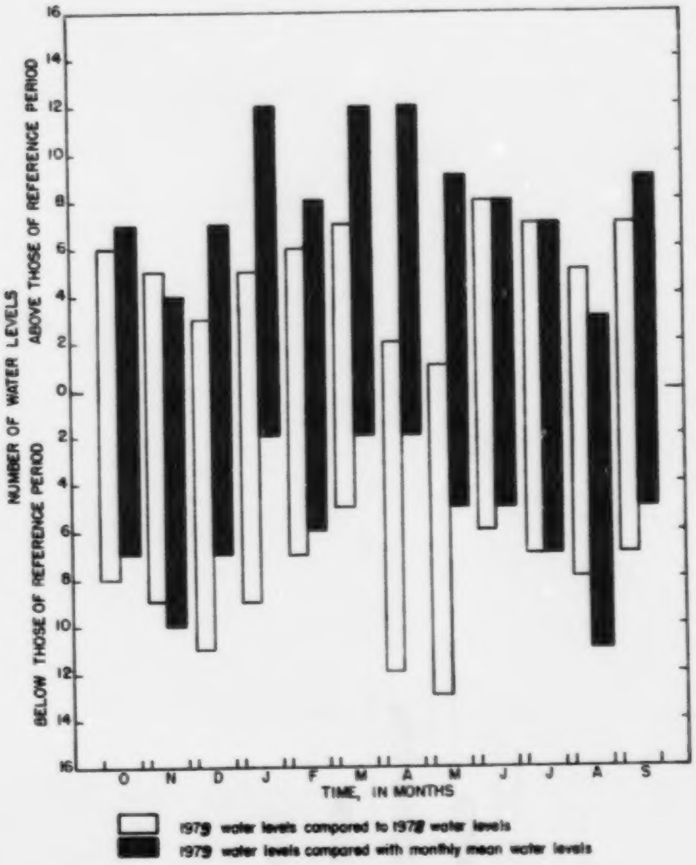

Figure 3.--Comparison of 1979 water levels in network observation wells with
a) 1978 water levels and
b) monthly mean water levels for period of record.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting inch-pound units to International System of units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer, tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as the organisms which produce colonies within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash, and sediment in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (FT^3/S, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45 mm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$d = \sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontribution areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage", although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram (μg/g) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Micrograms per liter (UG/L, μg/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L, and is based on the mass of sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton benthic organisms, and macrophytes are expressed in these terms.

Organisms count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology.

The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation.
Silt	0.004 - 0.062	Sedimentation.
Sand	0.062 - 2.0	Sedimentation or sieve.
Gravel	2.0 -64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass or volume.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells/mL of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells/mL of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in the solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lived.

Natural substrates refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lived.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) *dissolved* and (2) *total recoverable* concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) *dissolved* and (2) *total* concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata* is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	*Hexageria*
Species	*Hexagenia limbata*

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of substance in solution or suspension that passes a stream section during a 24-hour day.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Total in bottom material is the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WRD is used as an abbreviation for "Water-Resources Data" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published before 1975.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in the front of the report. Each indentation represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 03041000, which appears just to the left of the station name, includes the 2-digit part number "03" plus the 6-digit downstream order number "041000".

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and some miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7-digits denote the degrees, minutes, and seconds of longitude, and the last 2-digits (assigned sequentially identify the wells or other sites with a 1-second grid. See figure 4 below.

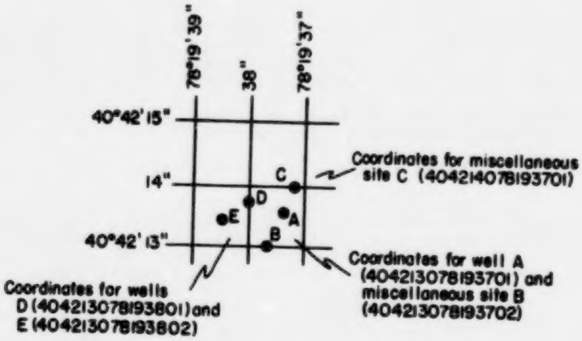
78°19'39"
38"
78°19'37"
40°42'15"
14"
40°42'13"
C
D
E
A
B
Coordinates for miscellaneous site C (404214078193701)
Coordinates for well A (404213078193701) and miscellaneous site B (404213078193702)
Coordinates for wells D (404213078193801) and E (404213078193802)

Figure 4.--System for numbering wells and miscellaneous sites (latitude and longitude).

A local well number is also assigned to the wells and consists of a 2-letter abbreviation of the county in which the well is located and a sequential number assigned at the time the well was scheduled.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data-collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water station in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurement of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard textbooks, in Water Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by hydrologists and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

At some northern stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents.

This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals, a table showing the daily discharge and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD".

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use; the datum of the present gage referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE". National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS" on page .

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS". For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is given under "REMARKS".

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with "EXTREMES FOR THE CURRENT YEAR"; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

Skeleton rating tables are published, immediately following "EXTREMES", for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE". Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used for computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good", within 10 percent; and "fair", within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Surface water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, pH, dissolved oxygen, water temperature, sediment discharge, etc.); extremes for the period of daily record; extremes for the current year; and general remarks.

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diel temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended-sediment and bed material are included.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. See figure 4.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. The altitude of the land-surface datum above mean sea level is given in the well description. Mean sea level is the datum plane on which the national network of precise levels is based. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office).

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.

3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.

3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.

5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.

8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

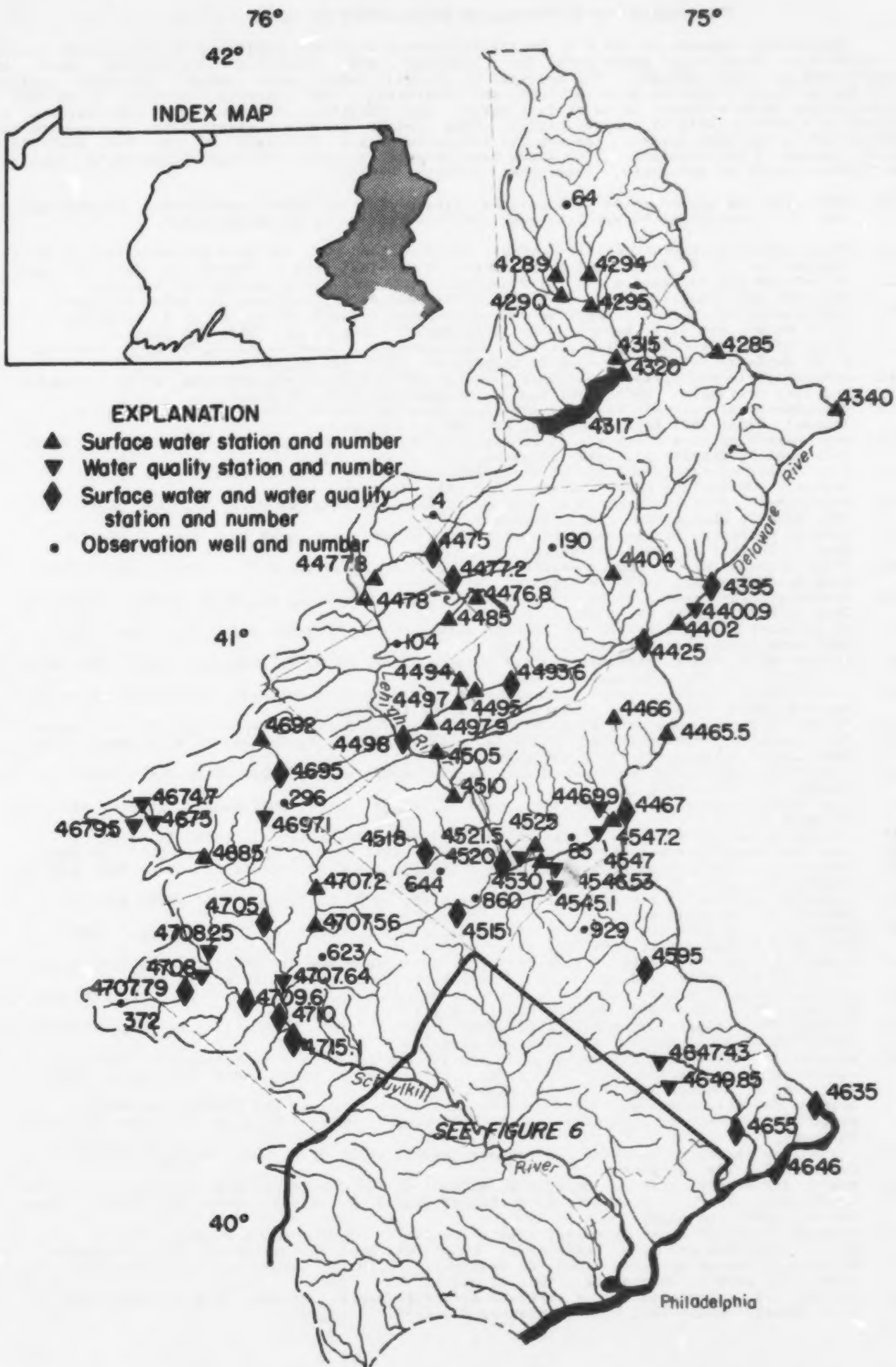
76°
75°
42°
INDEX MAP
EXPLANATION
▲ Surface water station and number
▼ Water quality station and number
◆ Surface water and water quality station and number
• Observation well and number
41°
40°
Delaware River
Lehigh R.
Schuylkill
River
SEE FIGURE 6
Philadelphia
64
4289
4294
4290
4295
4315
4320
4285
4317
4340
4
4475
190
4404
4477.8
4477.2
4476.8
4395
4478
4400.9
4485
4402
104
4425
4494
4493.6
4497
4495
4466
4692
4497.9
4465.5
4498
4505
4695
4510
4468.9
4467
4674.7
296
4679.5
4675
4697.1
4518
4521.5
4523
4547.2
4520
85
4547
4685
4530
4546.53
4707.2
644
860
4545.1
4705
4707.56
4515
929
4708.25
623
4595
4708
4707.64
4707.79
4709.6
372
4710
4715.1
4647.43
4649.85
4635
4655
4646

FIGURE 5—Location of data collection stations and observation wells

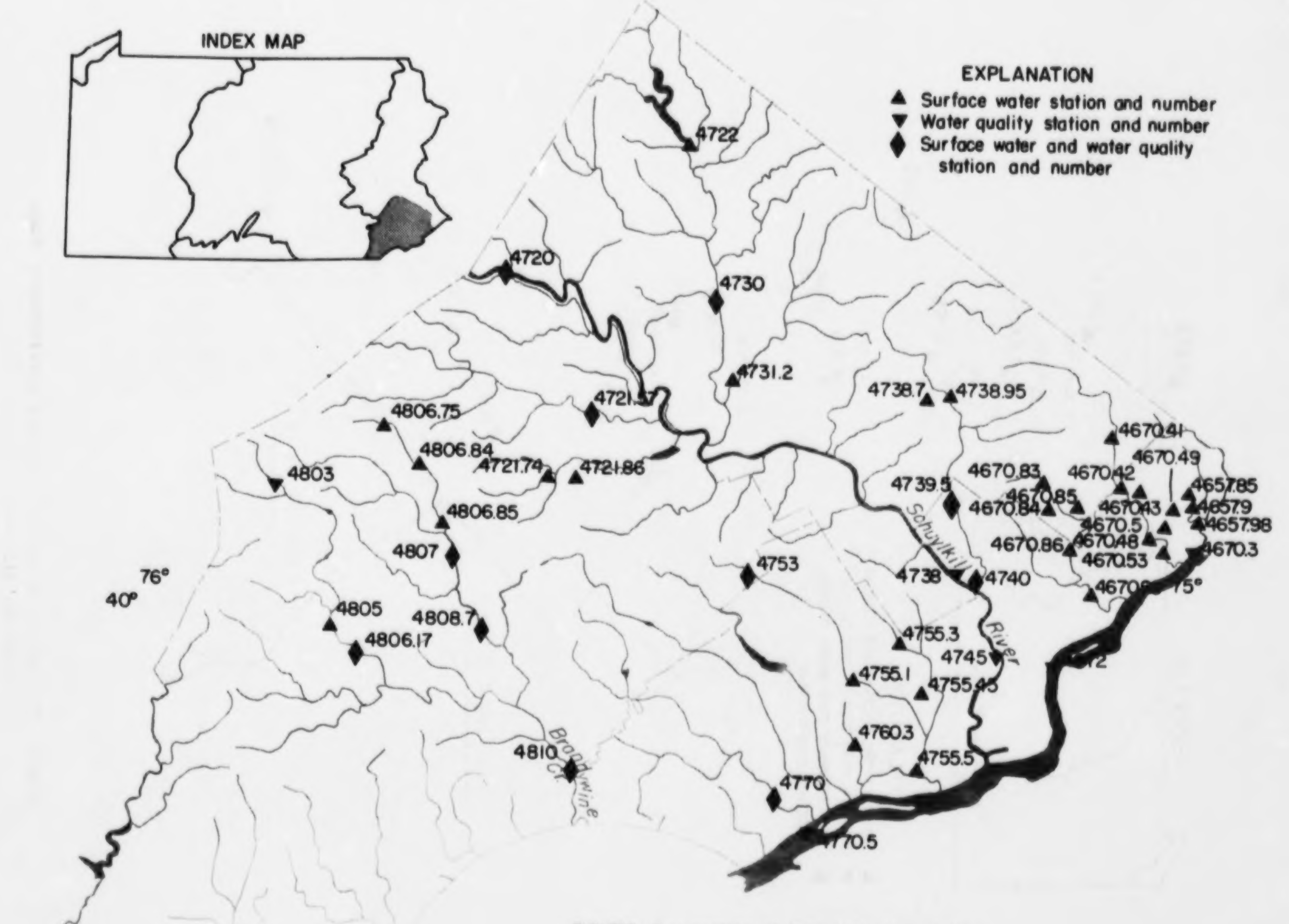
INDEX MAP
EXPLANATION
▲ Surface water station and number
▼ Water quality station and number
◆ Surface water and water quality station and number
4722
4720
4730
4731.2
4738.7
4738.95
4721.57
4806.75
4806.84
4721.74
4721.86
4803
4806.85
4807
76°
40°
4805
4808.7
4806.17
4739.5
4670.83
4670.85
4670.84
4670.86
4670.41
4670.49
4670.42
4670.43
4670.5
4670.48
4670.53
4657.85
4657.9
4657.98
4670.3
75°
Schuylkill River
4738
4740
4753
4755.3
4745
4755.1
4755.45
4760.3
4755.5
4770
4770.5
4810
Brandywine Cr.

FIGURE 6 - Location of data collection stations

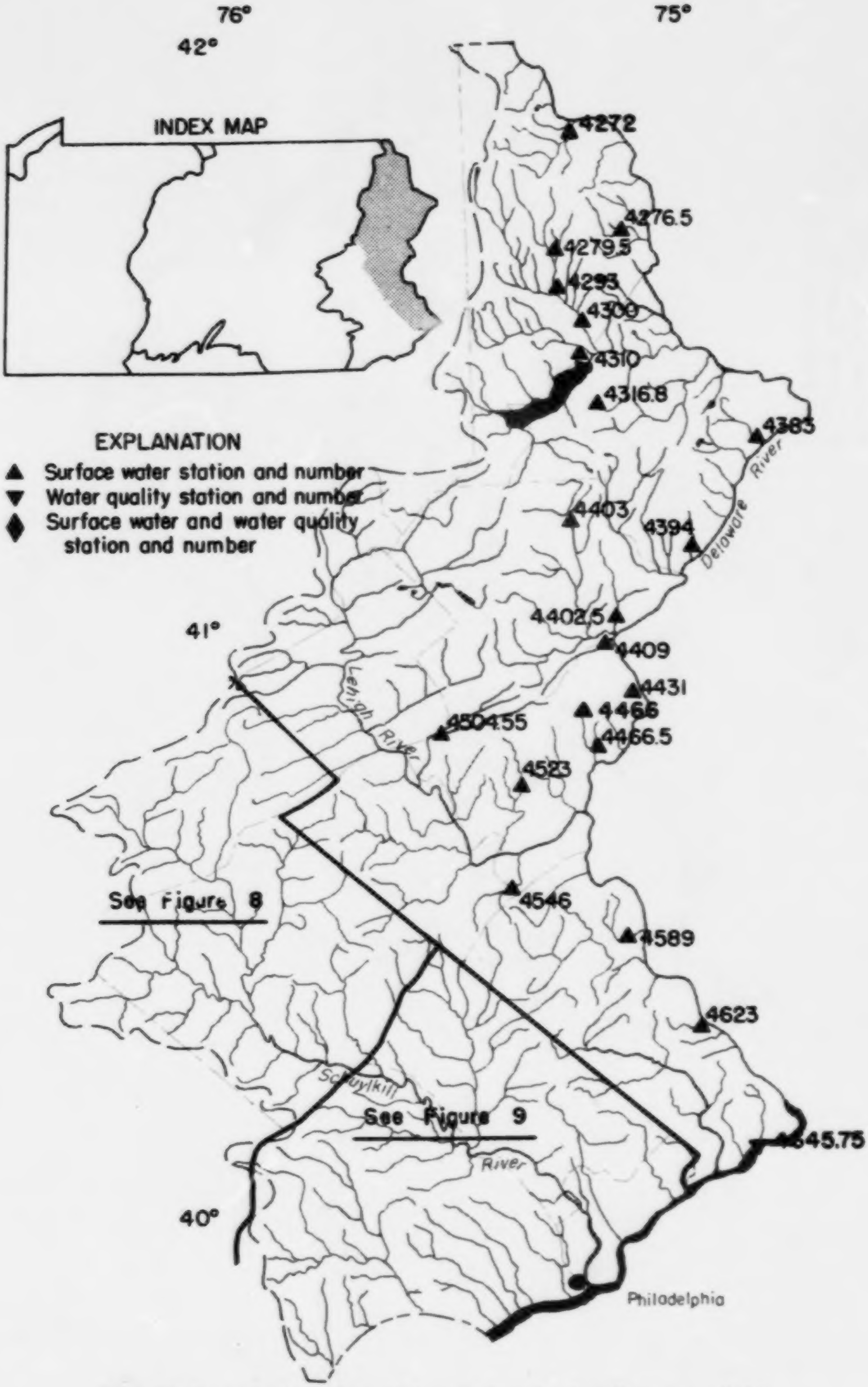
76°
75°
42°
INDEX MAP
EXPLANATION
▲ Surface water station and number
▼ Water quality station and number
◆ Surface water and water quality station and number
4272
4276.5
4279.5
4293
4300
4310
4316.8
4383
4403
4394
Delaware River
4402.5
4409
41°
4431
4466
4466.5
4504.55
Lehigh River
4523
4546
See Figure 8
4589
4623
Schuylkill River
See Figure 9
645.75
40°
Philadelphia

FIGURE 7– Location of partial-record and miscellaneous data collection stations.

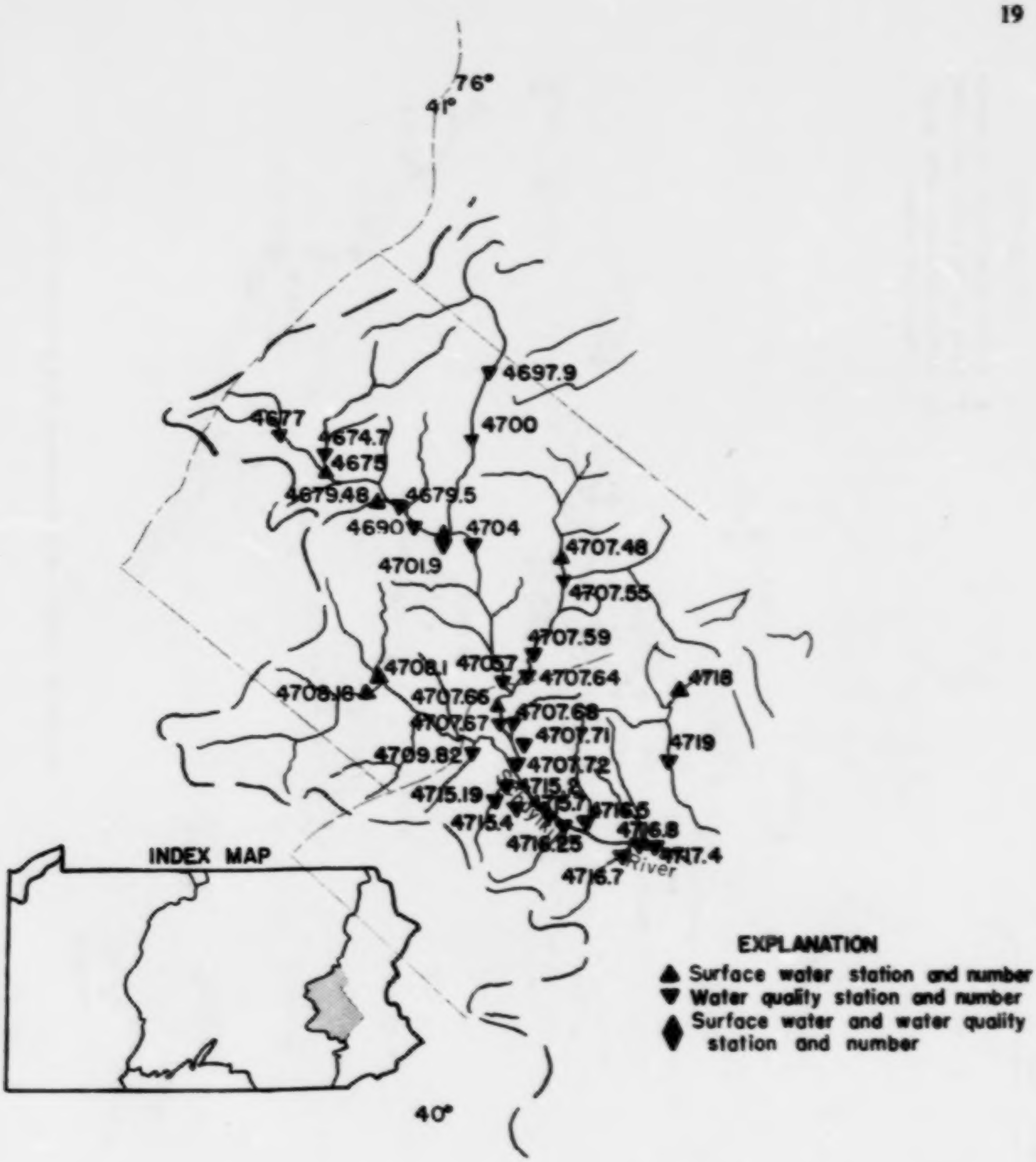
76°
41°
4697.9
4677
4674.7
4675
4700
4679.48
4679.5
4690
4704
4701.9
4707.48
4707.55
4707.59
4707.57
4707.64
4708.1
4708.16
4707.66
4707.68
4707.67
4707.71
4718
4719
4709.82
4707.72
4715.19
4715.8
4715.7
4716.5
4715.4
4716.8
4716.25
4717.4
4716.7
River
INDEX MAP
40°
EXPLANATION
▲ Surface water station and number
▼ Water quality station and number
◆ Surface water and water quality station and number

FIGURE 8 — Location of miscellaneous data collection stations.

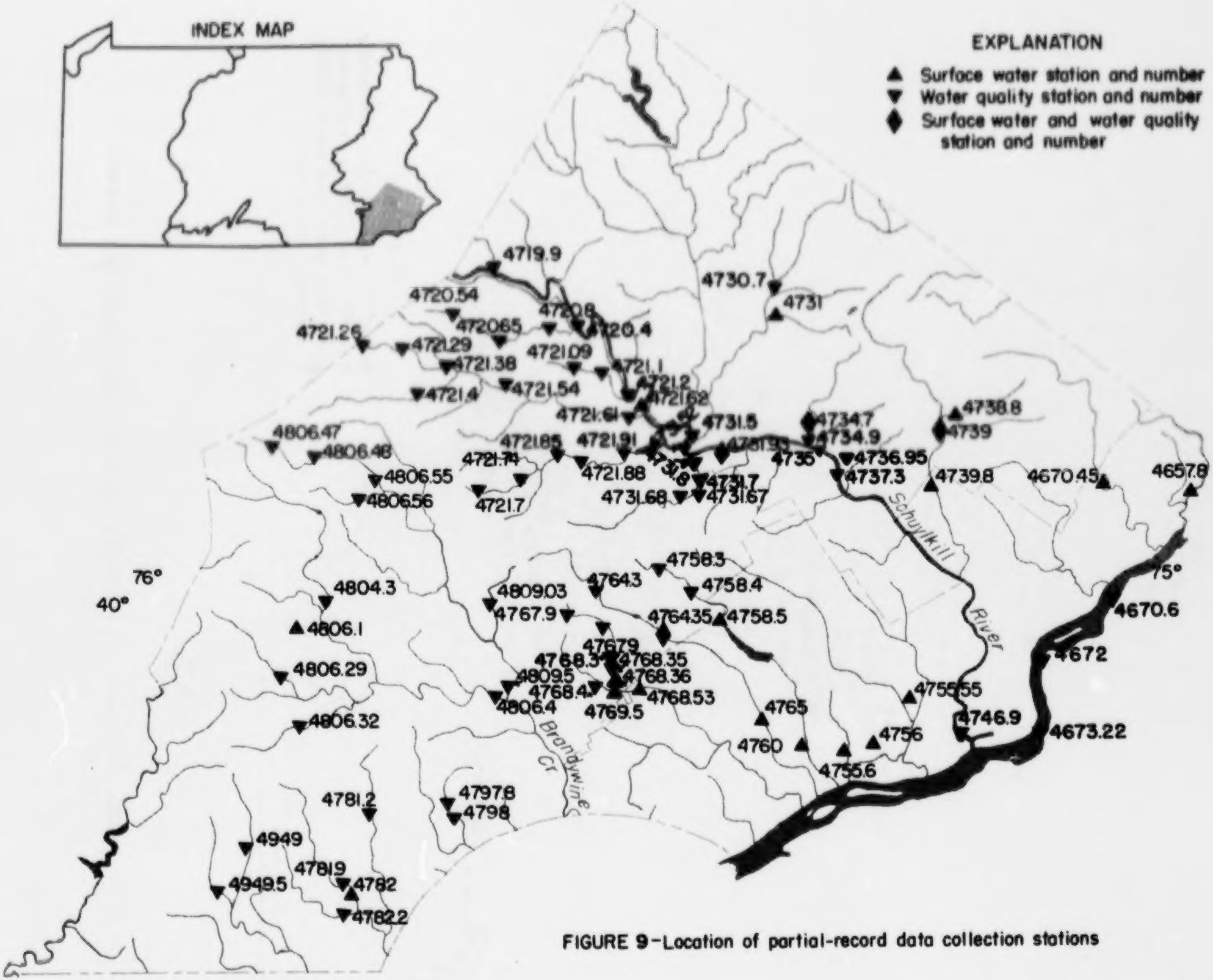
INDEX MAP
EXPLANATION
▲ Surface water station and number
▼ Water quality station and number
◆ Surface water and water quality station and number
76°
40°
75°
Schuylkill River
Brandywine Cr
4719.9
4720.54
472065
4720.8
4720.4
4721.26
4721.29
4721.38
4721.09
4721.1
4721.4
4721.54
4721.2
4721.62
4721.61
4721.85
4721.91
4721.74
4721.88
4721.7
4730.7
4731
4731.5
4731.9
4731.8
4731.7
4731.68
4731.67
4734.7
4734.9
4735
4736.95
4737.3
4738.8
4739
4739.8
4670.45
4657.8
4670.6
4672
4673.22
4746.9
4755.55
4756
4755.6
4760
4765
4758.3
4758.4
4758.5
4764.3
4764.35
4767.9
47679
4768.3
4768.35
4768.36
4768.4
4768.53
4769.5
4809.03
4809.5
4806.4
4806.47
4806.48
4806.55
4806.56
4804.3
4806.1
4806.29
4806.32
4781.2
4797.8
4798
4949
4949.5
47819
4782
4782.2

FIGURE 9-Location of partial-record data collection stations

01412350 DELAWARE BAY AT SHIP JOHN SHOAL LIGHTHOUSE, NJ

LOCATION.--Lat 39°18'19", long 75°22'37", Cumberland County, Hydrologic Unit 02040204, water-quality recorder on lightship in bay opposite Bombay Hook Island, DE, and 3 mi (4.8 km) south southwest of mouth of Cohansey River, NJ.

PERIOD OF RECORD.--April 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1969 to current year.
WATER TEMPERATURES: February 1970 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 52,800 micromhos Feb. 10, 1970; minimum, 1,500 micromhos Mar. 4, 1971.
WATER TEMPERATURES: Maximum, 33.0°C Aug. 2, 1979; minimum, freezing point on many days during winter periods.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	29600	25700	27900	---	---	---	31700	25900	28700			
2	29400	25900	27600	---	---	---	30400	24200	27400			
3	30400	26400	28200	---	---	---	30900	22500	26800			
4	---	---	---	---	---	---	24200	18500	21500			
5	---	---	---	---	---	---	28500	19200	23800			
6	---	---	---	---	---	---	28700	23000	26000			
7	---	---	---	---	---	---	27400	21000	25000			
8	---	---	---	---	---	---	25100	17400	21100			
9	---	---	---	29400	25200	27900	27200	16000	21600			
10	---	---	---	28500	23100	26300	28100	20800	24100			
11	---	---	---	29200	23900	26900	26200	18000	23200			
12	---	---	---	30400	24800	27400	26500	19000	23100			
13	---	---	---	31300	26700	28800	27900	19000	22900			
14	---	---	---	28900	23500	26300	23000	16400	20400			
15	---	---	---	27900	22400	25500	23800	16200	20300			
16	---	---	---	30000	25100	27300	23500	14900	19900			
17	---	---	---	28900	20600	25200	23500	13500	19000			
18	---	---	---	25900	17900	21500	21800	13600	17400			
19	---	---	---	27600	22100	25300	23200	14400	18200			
20	---	---	---	28900	22700	26000	25900	16600	20800			
21	---	---	---	29000	24200	26900	25400	15000	20500			
22	---	---	---	29400	25100	27000	25600	16400	21100			
23	---	---	---	28500	19300	25300	25200	17200	21900			
24	---	---	---	30400	18700	24400	25600	19600	22900			
25	---	---	---	30200	24200	27700	22100	18400	21000			
26	---	---	---	30400	25100	28600	22100	14000	19400			
27	---	---	---	31900	26400	28600	22100	16600	20100			
28	---	---	---	29600	23600	26700	25600	14800	20300			
29	---	---	---	31700	26200	28600	26500	17400	22400			
30	---	---	---	29000	23500	26200	28900	19900	24300			
31	---	---	---	---	---	---	27200	20000	23200			
MONTH	30400	25700	27900	31900	17900	26600	31700	13500	22200			

01412350 DELAWARE BAY AT SHIP JOHN SHOAL LIGHTHOUSE, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	15300	7990	11700	16200	10000	13600
2				---	---	---	16400	9290	12400	16300	9190	13300
3				---	---	---	16500	7960	11800	15400	9420	12900
4				---	---	---	14100	8640	11600	17700	9630	13400
5				---	---	---	16700	8300	11800	19000	9220	14700
6				---	---	---	16000	6940	11600	22100	11700	16500
7				---	---	---	16800	8610	12300	38600	12600	18600
8				13600	2640	6900	19100	9390	14700	20800	14800	18200
9				14700	3940	8760	21600	13400	16800	19700	13800	17300
10				13600	5170	9320	20100	12900	16800	20900	14700	17600
11				13800	6650	9880	20500	14400	17900	21600	14900	17900
12				13100	5590	9750	20700	14700	17900	22700	15800	19200
13				14300	7140	11000	22500	16100	18700	22700	16000	19100
14				14100	7910	11100	22500	14800	18600	22600	15700	18600
15				11800	6520	9240	21800	14100	17600	22900	15600	19200
16				13700	7420	10500	19600	13100	16600	22600	15800	19200
17				15300	8160	11700	19300	12200	16200	27900	16800	21100
18				16500	9530	12900	19200	12200	15900	28900	17800	21800
19				18800	10100	14100	19700	12100	16300	26000	18300	22300
20				17500	9810	14100	21500	12300	17200	23500	17900	21700
21				19100	10500	14900	20800	11900	17800	23500	16400	21300
22				19300	11600	15600	20900	14100	18500	23800	18400	21200
23				19100	10100	15800	20300	14400	17800	24600	18400	21500
24				19700	13500	17100	20100	13600	17100	23100	16700	20300
25				18200	12500	15400	20300	13200	16800	27900	14400	19200
26				17500	10200	13600	20500	13400	16900	20900	11800	16300
27				16800	7910	12300	27900	12700	20500	18600	9560	13600
28				17500	8460	12700	24500	12600	18800	15800	8300	12300
29				17300	8490	12200	25100	11500	15800	14600	9150	12200
30				16500	7990	12000	17200	11000	14300	15500	7770	11900
31				16100	8960	12000	---	---	---	14700	7290	11000
MONTH				19700	2640	12200	27900	6940	16000	38600	7290	17300

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	22600	5420	12500	20800	15000	18500	---	---	---	26200	20000	23900
2	17500	6680	11800	20600	14300	17500	---	---	---	27900	21500	24200
3	16200	7590	12100	22000	10900	17100	---	---	---	26000	21500	23600
4	30400	7240	15700	24000	13500	19500	26900	20600	23900	27200	21200	23900
5	19200	8390	13500	24500	16800	20500	28300	21200	24500	28500	21600	24600
6	19300	9880	14700	21400	10000	17500	29600	22200	25400	29800	19000	24500
7	27400	12300	18500	19500	11700	16400	29800	22800	26100	26400	17500	21700
8	36500	13200	18300	19700	15200	17500	29000	21300	25000	25900	17300	21400
9	22100	13700	17100	19100	15200	17000	28900	22000	25600	26900	18400	22300
10	20800	13700	17200	19400	15100	16300	30000	22400	25900	24900	16300	21400
11	21200	13300	16300	---	---	---	28500	22100	25700	23900	15900	20100
12	20900	12600	16500	---	---	---	30000	24200	27400	23900	16900	20400
13	21000	12400	16700	---	---	---	30900	24200	28200	23900	17300	20800
14	20500	12100	16300	---	---	---	28900	22800	26500	23100	17800	21000
15	20700	11800	15900	---	---	---	27700	21900	25000	21900	14700	18000
16	18500	12200	15500	---	---	---	28900	21900	25600	23300	15600	19200
17	19300	12000	16200	---	---	---	29200	23900	26700	24500	15400	20400
18	19400	12800	16400	---	---	---	28700	23800	26300	23900	18400	21400
19	21600	13900	17300	---	---	---	29000	24000	26800	24800	18500	21500
20	21900	13900	18000	25700	18700	23000	29200	24800	27100	24900	19300	23000
21	22400	13400	17800	26000	19400	23100	29000	24800	27400	24800	19900	22700
22	21300	13700	18100	26000	20300	23200	28700	23800	26800	23900	17600	21500
23	21400	14900	18400	26500	20100	23000	28500	24500	26700	24500	18900	21700
24	22000	14400	18200	25100	19500	22400	28700	24000	26300	24200	19100	22400
25	22800	15500	19000	24600	19300	22300	27600	23200	25300	23900	17300	21600
26	22800	14900	19200	24500	19300	22300	26200	22100	24700	23600	16100	20600
27	23100	15400	19100	24200	19000	22500	26400	22000	24400	23100	15400	20400
28	21900	14100	18700	25900	19300	23000	25700	21500	23900	23300	16600	20300
29	21800	14900	18600	25900	20500	23400	25100	21500	23700	23600	14400	20300
30	21600	14900	18800	26000	20800	23700	25600	21200	23700	23500	16600	20800
31	---	---	---	---	---	---	25700	20500	23300	---	---	---
MONTH	36500	5420	16800	26500	10000	20500	30900	20400	25600	29800	14400	21700

01412350 DELAWARE BAY AT SHIP JOHN SHOAL LIGHTHOUSE, NJ--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.0	20.5	21.0	---	---	---	9.0	8.5	9.0			
2	21.0	20.5	21.0	---	---	---	9.0	8.5	8.5			
3	20.5	20.0	20.5	---	---	---	8.5	6.5	8.0			
4	---	---	---	---	---	---	7.0	6.0	6.5			
5	---	---	---	---	---	---	9.0	6.0	8.0			
6	---	---	---	---	---	---	9.0	9.0	9.0			
7	---	---	---	---	---	---	9.5	8.5	9.0			
8	---	---	---	---	---	---	8.5	6.5	7.5			
9	---	---	---	15.0	14.5	14.5	---	---	---			
10	---	---	---	14.5	14.0	14.5	---	---	---			
11	---	---	---	14.5	14.0	14.5	9.0	8.0	8.5			
12	---	---	---	14.5	14.5	14.5	8.5	8.0	8.5			
13	---	---	---	14.5	14.0	14.5	8.0	8.0	8.0			
14	---	---	---	14.0	13.5	14.0	8.0	7.5	8.0			
15	---	---	---	14.5	13.5	14.0	7.5	7.0	7.0			
16	---	---	---	14.0	13.5	14.0	7.5	7.0	7.0			
17	---	---	---	13.5	11.0	12.5	7.0	6.5	6.5			
18	---	---	---	13.5	9.5	11.0	6.5	6.0	6.0			
19	---	---	---	13.5	13.0	13.5	6.0	5.0	5.5			
20	---	---	---	13.5	12.5	13.0	5.5	5.0	5.0			
21	---	---	---	[illegible]	12.5	12.5	6.0	4.5	5.0			
22	---	---	---	[illegible]	12.0	12.0	6.0	5.0	5.5			
23	---	---	---	12.0	9.0	11.0	5.5	5.0	5.5			
24	---	---	---	12.0	9.0	10.5	5.5	4.5	5.0			
25	---	---	---	11.5	11.0	11.5	5.5	4.0	5.0			
26	---	---	---	11.5	9.5	11.0	5.5	5.0	5.0			
27	---	---	---	10.5	8.5	9.5	5.0	4.5	5.0			
28	---	---	---	9.5	8.0	9.0	4.5	4.0	4.5			
29	---	---	---	9.5	8.5	9.5	4.0	3.5	4.0			
30	---	---	---	9.0	8.0	8.5	4.0	3.5	4.0			
31	---	---	---	---	---	---	4.0	3.0	3.5			
MONTH	21.0	20.0	21.0	15.0	8.0	12.5	9.5	3.0	6.5			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	10.0	9.5	10.0	15.0	14.0	14.5
2				---	---	---	10.0	9.5	10.0	15.0	14.0	14.5
3				---	---	---	10.5	10.0	10.0	15.0	14.5	15.0
4				---	---	---	10.5	10.0	10.0	15.5	15.0	15.0
5				---	---	---	10.5	10.0	10.0	15.5	15.0	15.0
6				---	---	---	10.5	9.5	10.0	16.5	15.0	15.5
7				---	---	---	9.5	9.0	9.5	16.5	15.0	15.5
8				5.5	4.0	4.5	10.0	8.5	9.0	17.5	15.5	16.5
9				5.5	4.0	4.5	9.0	8.5	8.5	18.5	16.5	17.0
10				6.0	4.5	5.0	9.5	8.5	8.5	18.5	17.0	18.0
11				6.0	5.0	5.0	10.0	8.5	9.0	19.5	18.0	18.5
12				6.0	4.5	5.0	9.5	9.0	9.5	19.5	18.0	18.5
13				6.0	4.5	5.0	9.5	9.0	9.5	19.5	18.5	19.0
14				6.5	5.0	6.0	9.5	9.0	9.5	19.5	18.5	19.0
15				6.0	5.0	5.5	9.5	9.0	9.5	19.5	18.5	19.0
16				5.5	4.5	5.0	10.0	9.5	9.5	19.5	19.0	19.0
17				6.5	5.0	5.5	10.0	9.5	9.5	19.5	18.5	19.0
18				6.5	5.0	5.5	10.5	9.5	10.0	19.0	18.5	18.5
19				6.5	5.0	6.0	10.5	9.5	10.0	19.5	18.0	18.5
20				6.5	5.5	6.0	11.5	9.5	10.5	19.5	18.5	19.0
21				7.5	6.0	6.5	12.0	10.5	11.0	19.5	19.0	19.0
22				8.0	6.5	7.0	11.5	11.0	11.5	19.5	19.0	19.0
23				8.5	7.0	7.5	12.0	11.5	11.5	20.0	19.0	19.5
24				8.0	7.5	8.0	12.0	12.0	12.0	20.0	19.5	20.0
25				8.5	8.0	8.0	13.0	12.0	12.0	20.5	20.0	20.0
26				8.5	8.0	8.0	13.0	12.5	13.0	20.0	20.0	20.0
27				8.0	8.0	8.0	13.5	12.5	13.5	20.0	19.5	19.5
28				8.5	8.0	8.0	13.5	13.5	13.5	20.0	19.5	20.0
29				8.5	8.0	8.0	14.5	13.5	13.5	20.5	19.5	20.0
30				9.5	8.0	8.5	14.5	13.5	14.0	21.0	20.0	20.5
31				9.5	8.5	9.5	---	---	---	21.0	20.0	20.5
MONTH				9.5	4.0	6.5	14.5	8.5	10.5	21.0	14.0	18.0

01412350 DELAWARE BAY AT SHIP JOHN SHOAL LIGHTHOUSE, NJ--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.5	20.5	21.0	23.5	22.5	23.0	29.0	28.0	28.5	27.5	26.5	27.0
2	21.0	20.5	21.0	23.5	22.5	23.0	33.0	28.5	29.0	27.5	27.0	27.0
3	21.0	20.5	21.0	23.0	21.5	22.5	29.5	28.5	29.0	27.5	27.0	27.0
4	21.0	20.0	20.5	23.0	22.0	22.5	29.5	29.0	29.0	28.0	27.0	27.5
5	22.0	20.0	20.5	22.0	20.5	21.0	30.0	29.0	29.0	27.5	27.5	27.5
6	21.5	20.0	21.0	21.5	20.0	21.0	29.5	29.0	29.0	---	---	---
7	22.0	20.5	21.0	22.0	21.0	21.0	29.5	28.5	29.0	27.5	27.0	27.0
8	22.0	21.0	21.5	23.5	21.0	21.5	29.0	28.5	29.0	27.0	26.5	27.0
9	22.0	21.0	21.5	22.0	21.0	21.5	29.0	28.5	29.0	26.5	26.0	26.0
10	22.5	21.5	22.0	22.5	21.5	21.5	29.0	28.5	29.0	26.0	25.5	26.0
11	22.5	21.5	22.0	---	---	---	29.0	28.5	29.0	26.0	25.5	26.0
12	21.5	21.5	21.5	---	---	---	28.5	27.0	28.0	26.0	25.0	25.5
13	21.5	21.0	21.5	---	---	---	27.0	26.0	26.5	25.5	25.0	25.0
14	22.0	21.0	21.5	---	---	---	26.0	26.0	26.0	25.5	25.0	25.0
15	22.0	21.0	21.5	---	---	---	26.0	25.0	25.5	25.0	24.0	24.5
16	22.0	21.5	21.5	---	---	---	25.0	24.0	24.5	24.5	24.0	24.0
17	22.5	21.5	22.0	---	---	---	24.5	24.0	24.0	24.5	23.5	24.0
18	24.0	22.0	22.5	---	---	---	24.0	23.5	24.0	24.0	23.5	24.0
19	22.5	21.5	22.0	---	---	---	25.5	23.5	24.0	24.0	23.0	23.5
20	23.5	21.5	22.5	27.5	26.5	27.0	25.0	24.0	24.0	23.5	22.5	23.0
21	23.0	22.0	22.5	27.5	26.5	26.5	24.5	24.0	24.0	23.0	22.5	22.5
22	23.0	22.0	22.5	27.5	26.5	26.5	24.5	24.0	24.0	22.5	22.5	22.5
23	23.0	22.5	22.5	27.0	26.5	27.0	24.5	24.0	24.5	22.0	22.0	22.0
24	23.0	22.0	22.5	27.5	26.5	27.0	25.0	24.5	24.5	22.0	21.0	21.5
25	22.5	21.5	22.0	28.0	27.0	27.0	---	---	---	21.0	21.0	21.0
26	23.0	21.5	22.0	28.5	27.0	27.5	---	---	---	21.0	21.0	21.0
27	22.5	21.5	22.0	28.0	27.5	27.5	26.5	25.5	26.0	21.0	21.0	21.0
28	22.5	21.5	22.0	28.5	27.5	27.5	26.5	26.0	26.0	21.5	21.0	21.0
29	23.0	22.0	22.5	28.5	27.5	28.0	29.5	26.0	26.5	21.5	21.0	21.5
30	23.0	22.0	22.5	28.5	27.5	27.5	27.0	26.5	26.5	21.5	21.0	21.5
31	---	---	---	28.5	27.5	28.0	27.5	26.5	26.5	---	---	---
MONTH	24.0	20.0	22.0	28.5	20.0	25.0	33.0	23.5	26.5	28.0	21.0	24.0

DELAWARE RIVER BASIN

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY

LOCATION.--Lat 41°30'31", long 74°59'11" (revised), Sullivan County, Hydrologic Unit 02040101, on left bank 1.6 mi (2.6 km) upstream from Lackawaxen River, and 4.6 mi (7.4 km) northwest of Barryville. Water-quality sampling site at discharge station.

DRAINAGE AREA.--2,023 mi^2 (5,240 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 600.22 ft (182.947 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records excellent except those for winter periods, which are poor. Subsequent to September 1954, entire flow from 371 mi^2 (961 km^2) of drainage area controlled by Pepacton Reservoir (see Reservoirs in Delaware River Basin), and subsequent to October 1963, entire flow from 454 mi^2 (1,176 km^2) of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow of these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 130,000 ft^3/s (3,680 m^3/s) Aug. 19, 1955, gage height, 26.40 ft (8.047 m) from floodmarks in gage house, from rating curve extended above 55,000 ft^3/s (1,560 m^3/s) on basis of slope-area measurement at gage height 23.19 ft (7.068 m); minimum, 122 ft^3/s (3.46 m^3/s) Sept. 5, 1953, gage height, 1.11 ft (0.338 m); minimum daily, 126 ft^3/s (3.57 m^3/s) Sept. 4, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 48,200 ft^3/s (1,365 m^3/s) Mar. 6, gage height, 15.14 ft (4.615 m); minimum, 600 ft^3/s (16.99 m^3/s) Sept. 15, gage height, 2.31 ft (0.704 m); minimum daily, 633 ft^3/s (17.93 m^3/s) Sept. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1310	1350	1140	1600	2840	3700	5990	5790	8450	934	1140	1300
2	1230	1350	1110	17800	1950	3900	5540	5060	6610	1020	1210	1400
3	1300	1350	1030	24700	1600	4100	5600	4480	6430	1050	1340	1390
4	1460	1410	970	9900	1600	4500	5110	4930	5460	1100	1170	1300
5	1470	1420	1510	5940	1500	15000	5140	5380	4450	858	1170	1270
6	1640	1410	1810	4500	1500	45200	4960	4480	3830	866	1030	926
7	1340	1370	1610	3800	1400	32100	4450	3930	3290	1170	988	5110
8	1090	1330	1570	7050	1400	20100	4110	3490	2840	1050	988	2770
9	1110	1340	3310	8180	1300	13900	4550	3140	2430	850	1060	1530
10	1240	1330	6020	4890	1300	11000	7460	2790	2070	998	1270	1080
11	1310	1220	4060	3680	1300	13800	7780	2430	1890	1010	1510	866
12	1330	1330	3290	2590	1200	11900	7080	2100	1880	1240	1410	732
13	1350	1330	2990	2440	1200	9150	6860	1880	1890	1250	1390	674
14	1300	1280	2540	3230	1200	7850	7300	1760	1680	1300	891	633
15	2080	1290	2190	3160	1100	7620	8800	1620	1500	1140	1170	908
16	1870	1250	1810	2410	1100	6050	8450	1500	1330	943	979	1800
17	1190	1040	1700	2020	1000	5410	8010	1360	1220	1330	1140	1050
18	1190	883	1450	1740	1000	4750	7330	1220	1140	1420	1220	740
19	1120	1320	1140	3060	980	4290	6340	1160	1090	970	1360	646
20	1210	1770	1290	2460	960	3980	5490	1250	1040	1100	1410	660
21	1350	1470	1700	4200	1100	3760	4830	1250	998	1010	1390	842
22	1280	1360	2360	7720	1100	3700	4240	1110	952	883	1290	1430
23	1220	1420	2020	7300	1300	3720	3800	1110	1010	1030	1260	2250
24	1230	1110	1700	5060	2500	4000	3370	3370	1030	988	1340	1690
25	1240	1340	1300	16000	2800	11200	2860	15300	988	1090	1360	1210
26	1350	1620	1300	15300	3100	12800	2490	24300	926	1030	1150	988
27	1890	1270	1400	8350	3300	10000	3290	23100	988	1180	1300	866
28	2930	979	1300	6110	3500	8310	10400	17900	1100	1350	1360	778
29	1950	1310	1200	4850	---	7430	9010	15500	1130	1210	1260	891
30	1570	1250	1200	3960	---	7520	6950	13600	1210	935	1330	1330
31	1360	---	1200	3330	---	6710	---	11000	---	1030	1270	---
TOTAL	44510	39502	59220	197360	46130	307450	177590	187290	70852	33335	38156	39060
MEAN	1436	1317	1910	6366	1648	9918	5920	6042	2362	1075	1231	1302
MAX	2930	1770	6020	24700	3500	45200	10400	24300	8450	1420	1510	5110
MIN	1090	883	970	1600	960	3700	2490	1110	926	850	891	633

CAL YR 1978 TOTAL 1194225 MEAN 3272 MAX 33200 MIN 646
WTR YR 1979 TOTAL 1240455 MEAN 3399 MAX 45200 MIN 633

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.
CHEMICAL DATA: 1971-73 (a).
NUTRIENT DATA: 1971 (a).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1967 to current year (no record for winter months each year except water years 1968, 1977-79).

INSTRUMENTATION.--Temperature recorder since October 1967.

REMARKS.--No record Oct. 1 to Dec. 28, Mar. 11 to July 18, due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1968-75), 32.0°C Aug. 2, 3 1975; minimum (water years 1968, 1977-79), freezing point on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 29.5°C July 19; minimum, freezing point on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1							---	---	---	.5	.0	.5
2							---	---	---	.5	.0	.5
3							---	---	---	1.0	.0	.5
4							---	---	---	.0	.0	.0
5							---	---	---	.5	.0	.5
6							---	---	---	.5	.0	.5
7							---	---	---	.5	.0	.5
8							---	---	---	.5	.0	.5
9							---	---	---	.5	.5	.5
10							---	---	---	.5	.5	.5
11							---	---	---	1.0	.5	.5
12							---	---	---	1.0	.5	.5
13							---	---	---	1.0	.5	.5
14							---	---	---	1.0	.5	.5
15							---	---	---	1.0	.5	1.0
16							---	---	---	1.0	.5	1.0
17							---	---	---	1.0	1.0	1.0
18							---	---	---	1.0	1.0	1.0
19							---	---	---	1.0	1.0	1.0
20							---	---	---	1.0	1.0	1.0
21							---	---	---	1.0	.5	1.0
22							---	---	---	1.0	.0	.5
23							---	---	---	1.5	.5	1.0
24							---	---	---	1.0	1.0	1.0
25							---	---	---	1.0	.0	.5
26							---	---	---	2.0	.0	.5
27							---	---	---	2.5	1.5	2.0
28							---	---	---	2.5	2.0	2.5
29							1.0	.5	.5	2.5	.0	2.0
30							1.0	.5	1.0	2.0	.0	1.0
31							1.0	.5	.5	1.5	.0	1.0
MONTH							1.0	.5	.5	2.5	.0	1.0

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.5	.0	.5	1.0	.0	.0						
2	1.5	.5	1.0	.0	.0	.0						
3	1.5	1.0	1.0	.0	.0	.0						
4	1.0	.5	1.0	.0	.0	.0						
5	1.0	.0	.5	.0	.0	.0						
6	.5	.5	.5	1.5	.0	1.0						
7	.5	.0	.5	2.0	1.5	2.0						
8	.5	.0	.5	2.5	2.0	2.0						
9	.5	.0	.5	2.5	1.5	2.0						
10	.5	.0	.0	3.0	2.5	3.0						
11	.5	.0	.5	---	---	---						
12	.5	.0	.0	---	---	---						
13	.0	.0	.0	---	---	---						
14	.0	.0	.0	---	---	---						
15	.0	.0	.0	---	---	---						
16	.0	.0	.0	---	---	---						
17	.0	.0	.0	---	---	---						
18	.0	.0	.0	---	---	---						
19	.0	.0	.0	---	---	---						
20	.0	.0	.0	---	---	---						
21	.0	.0	.0	---	---	---						
22	.0	.0	.0	---	---	---						
23	.0	.0	.0	---	---	---						
24	.0	.0	.0	---	---	---						
25	.0	.0	.0	---	---	---						
26	.0	.0	.0	---	---	---						
27	.0	.0	.0	---	---	---						
28	1.0	.0	.0	---	---	---						
29	---	---	---	---	---	---						
30	---	---	---	---	---	---						
31	---	---	---	---	---	---						
MONTH	1.5	.0	.0	3.0	.0	1.0						

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1				---	---	---	28.0	24.5	26.0	24.5	20.5	22.5
2				---	---	---	27.0	25.0	26.0	23.5	21.0	22.0
3				---	---	---	27.0	24.0	25.5	23.5	21.0	22.5
4				---	---	---	27.5	23.5	25.5	23.5	21.0	22.0
5				---	---	---	28.0	23.5	25.5	23.0	21.0	22.0
6				---	---	---	26.5	24.0	25.0	24.5	22.0	22.5
7				---	---	---	25.5	21.5	23.5	22.5	21.0	21.5
8				---	---	---	25.5	22.0	23.5	22.0	20.5	21.0
9				---	---	---	25.5	21.0	23.0	22.5	15.0	20.0
10				---	---	---	24.0	22.0	23.0	22.0	18.0	20.0
11				---	---	---	23.0	20.0	21.5	23.0	19.5	21.0
12				---	---	---	20.0	17.0	18.5	23.0	18.5	20.5
13				---	---	---	21.0	16.0	17.5	22.5	19.5	21.0
14				---	---	---	20.0	18.0	18.5	21.5	20.5	21.0
15				---	---	---	18.0	17.0	17.5	21.5	19.5	20.5
16				---	---	---	21.0	16.5	18.5	21.0	18.5	19.5
17				---	---	---	21.0	16.5	19.0	21.5	17.0	19.0
18				---	---	---	19.5	18.0	18.0	22.0	18.0	20.0
19				29.5	24.5	27.0	20.5	17.5	18.5	21.0	18.0	19.5
20				28.0	23.5	26.5	21.5	17.5	19.5	19.5	16.0	17.5
21				28.0	24.5	26.0	23.0	15.0	20.5	17.0	16.5	16.5
22				27.5	24.5	26.0	24.0	19.5	22.0	17.0	15.0	16.5
23				27.0	24.0	25.5	24.0	20.5	22.5	18.0	15.5	16.5
24				28.0	23.5	25.5	23.5	21.5	22.0	18.0	15.5	16.5
25				28.0	24.5	26.0	24.0	21.0	22.5	18.0	14.5	16.0
26				26.5	24.5	25.5	24.5	20.5	22.5	19.5	15.5	17.0
27				26.5	23.5	25.0	26.0	22.0	24.0	20.0	15.5	17.5
28				26.5	23.0	25.0	25.5	22.5	24.0	17.5	16.5	17.0
29				24.5	19.5	23.5	24.0	22.5	23.0	19.0	17.0	18.0
30				26.0	21.5	23.5	25.0	21.5	23.0	18.0	17.5	17.5
31				26.5	23.0	25.0	25.0	21.0	23.0	---	---	---
MONTH				29.5	19.5	25.5	28.0	15.0	22.0	24.5	14.5	19.5

LACKAWAXEN RIVER BASIN

01429000 WEST BRANCH LACKAWAXEN RIVER AT PROMPTON, PA

LOCATION.--Lat 41°35'14", long 75°19'38", Wayne County, Hydrologic Unit 02040103, on right bank 500 ft (150 m) downstream from Prompton Lake, 1,500 ft (460 m) upstream from bridge on U.S. Highway 6 at Prompton, and 2,000 ft (610 m) upstream from Van Auken Creek.

DRAINAGE AREA.--59.7 mi² (154.6 km²).

PERIOD OF RECORD.--August 1944 to current year. Prior to October 1952, published as Lackawaxen River at Prompton.

REVISED RECORDS.--WSP 1432: 1948-49. WRD PA-71: 1970(M).

GAGE.--Water-stage recorder. Datum of gage is 1,083.78 ft (330.336 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for period of missing record Jan. 21 to Apr. 2, which are poor. Flow regulated by Prompton Lake (station 01428900) 500 ft (150 m) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--35 years, 112 ft³/s (3.172 m³/s), 25.58 in/yr (650 mm/yr), adjusted for storage since January 1961.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,860 ft³/s (166 m³/s) Aug. 18, 1955, gage height, 9.24 ft (2.816 m), from rating curve extended above 3,600 ft³/s (102 m³/s); no flow July 26 to Aug. 25, 1960, result of construction work upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 23, 1942, reached a stage of 16.7 ft (5.09 m), from floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,200 ft³/s (34.0 m³/s) Mar. 6; minimum, 10 ft³/s (0.28 m³/s) Aug. 9, 10, 11, gage height, 0.96 ft (0.293 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	49	39	343	140	200	160	196	246	23	14	15
2	16	43	37	1050	120	250	169	157	202	23	14	14
3	18	39	36	592	100	220	180	137	177	22	15	14
4	24	34	36	327	90	250	166	169	144	21	15	14
5	36	33	60	225	80	1000	169	160	119	20	14	14
6	34	32	79	186	75	1200	157	137	106	18	13	56
7	31	30	73	257	70	1100	137	119	93	17	12	98
8	26	29	69	350	75	700	119	103	81	17	11	70
9	24	27	113	257	70	500	144	91	73	16	11	50
10	22	26	222	183	65	400	232	80	66	15	10	38
11	22	24	189	134	62	500	253	77	63	15	12	31
12	24	24	147	115	60	350	218	71	58	15	16	26
13	55	22	124	117	60	250	189	67	52	15	20	22
14	81	22	110	132	60	250	189	64	46	14	19	21
15	67	22	93	113	60	300	225	59	43	14	17	25
16	57	21	81	93	60	250	228	57	39	16	15	24
17	48	20	74	67	60	200	205	50	35	23	13	22
18	43	20	67	71	60	170	180	45	32	24	13	20
19	41	26	58	67	60	150	152	43	31	25	15	20
20	39	32	52	113	60	150	132	45	28	22	15	19
21	35	32	83	257	60	150	115	44	26	19	15	22
22	33	30	117	500	60	150	106	42	25	17	14	52
23	31	28	101	350	60	160	97	47	26	17	13	62
24	28	28	87	250	150	180	91	313	25	35	13	53
25	28	33	83	1100	450	400	81	884	24	31	14	47
26	71	45	81	1000	500	370	78	836	22	27	14	42
27	113	45	74	500	350	300	164	625	21	27	16	38
28	106	40	64	300	200	200	537	495	21	23	18	37
29	89	40	58	250	---	210	378	427	22	19	17	39
30	74	39	57	200	---	220	261	458	23	17	17	38
31	60	---	61	160	---	180	---	331	---	15	16	---
TOTAL	1391	935	2625	9663	3317	10910	5512	6429	1969	622	451	1043
MEAN	44.9	31.2	84.7	312	118	352	184	207	65.6	20.1	14.5	34.8
MAX	113	49	222	1100	500	1200	537	884	246	35	20	98
MIN	15	20	36	67	60	150	78	42	21	14	10	14
MEAN≠	49.3	27.3	98.7	301	125	351	182	215	52.0	19.1	14.4	36.3
CFSM≠	.83	.46	1.65	5.04	2.09	5.87	3.04	3.59	.87	.32	.24	.61
IN.≠	.95	.51	1.91	5.82	2.18	6.77	3.40	4.14	.97	.37	.28	.68

CAL YR 1978 TOTAL 42690.5 MEAN 117 MAX 1180 MIN 5.0 MEAN≠ 118 CFSM≠ 1.98 IN.≠ 26.87
WTR YR 1979 TOTAL 44867.0 MEAN 123 MAX 1200 MIN 10 MEAN≠ 123 CFSM≠ 2.06 IN.≠ 27.98

≠ Adjusted for change in contents in Prompton Lake.

LACKAWAXEN RIVER BASIN

01429500 DYBERRY CREEK NEAR HONESDALE, PA

LOCATION.--Lat 41°36'25", long 75°16'00", Wayne County, Hydrologic Unit 02040103, on right bank 180 ft (55 m) upstream from unnamed tributary, 1,700 ft (518 m) downstream from General Edgar Jadwin Reservoir, 2.1 mi (3.4 km) north of Honesdale, and 2.6 mi (4.2 km) upstream from mouth.

DRAINAGE AREA.--64.6 mi^2 (167.3 km^2).

PERIOD OF RECORD.--October 1943 to current year. Published as "at Dyberry" October 1943 to September 1959 and as "near Dyberry" October 1959 to September 1961.

REVISED RECORDS.--WSP 1382: 1947(M), 1950(M), 1951-53.

GAGE.--Water-stage recorder. Datum of gage is 970.70 ft (295.869 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1957, nonrecording gage at site 1.9 mi (3.1 km) upstream at datum 13.70 ft (4.176 m) higher.

REMARKS.--Records good except for periods of missing or doubtful gage-height record, which are fair. Flow regulated since 1960 by General Edgar Jadwin Reservoir (station 01429400) 1,700 ft (518 m) upstream.

AVERAGE DISCHARGE.--36 years, 115 ft^3/s (3.257 m^3/s), 24.27 in/yr (616 mm/yr), adjusted for storage since October 1959.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft^3/s (439 m^3/s) July 10, 1952, gage height, 14.6 ft (4.45 m), site and datum then in use, from rating curve extended above 2,500 ft^3/s (71 m^3/s) on basis of slope-area measurement at gage height 13.78 ft (4.200 m), site and datum then in use; no flow Oct. 2, 3, 1968, result of shutoff at General Edgar Jadwin Reservoir.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 23, 1942, reached a stage of 15.86 ft (4.834 m), site and datum then in use, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,620 ft^3/s (45.9 m^3/s) Mar. 6, gage height, 5.83 ft (1.777 m); minimum daily, 9.9 ft^3/s (0.28 m^3/s) Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	27	40	202	111	198	154	171	197	26	11	12
2	10	25	37	1190	100	242	156	140	163	30	10	12
3	10	24	31	1260	90	229	200	126	140	25	10	13
4	10	22	52	371	80	257	162	186	121	21	12	13
5	10	21	105	193	75	978	190	168	102	20	10	12
6	36	20	70	153	70	1490	161	135	95	17	11	169
7	30	21	59	159	66	1450	130	115	92	15	11	94
8	21	22	70	641	70	906	116	106	88	14	10	43
9	17	21	368	382	63	421	194	96	75	14	10	26
10	15	20	218	193	59	383	379	95	66	13	10	20
11	14	20	113	135	55	615	348	89	67	13	11	17
12	12	19	97	113	53	406	238	74	65	12	15	15
13	12	19	85	112	52	255	185	75	51	12	25	14
14	42	20	77	138	51	268	211	73	53	11	15	17
15	61	18	68	127	50	297	291	64	49	11	13	29
16	37	18	61	102	49	184	253	88	47	11	11	21
17	27	19	60	83	48	168	201	65	41	19	10	15
18	22	41	56	83	47	154	165	50	40	17	9.9	14
19	20	42	53	76	48	149	138	49	33	15	12	13
20	21	33	49	69	47	148	122	55	33	12	12	12
21	21	30	147	219	45	157	112	51	26	11	12	16
22	19	28	118	627	45	156	104	48	27	11	10	90
23	17	27	82	331	44	174	95	66	35	12	12	54
24	17	38	65	251	154	190	86	493	28	53	12	34
25	16	66	73	1380	501	453	82	1230	24	26	11	26
26	19	52	81	1330	605	435	94	1300	21	20	10	21
27	88	36	66	524	417	265	258	904	20	21	13	17
28	60	44	55	281	214	182	659	560	19	16	17	16
29	43	40	47	208	---	194	387	459	24	14	15	18
30	34	39	42	162	---	201	234	378	27	13	14	19
31	29	---	40	137	---	181	---	274	---	12	13	---
TOTAL	800	872	2585	11232	3309	11786	6105	7783	1869	537	377.9	892
MEAN	25.8	29.1	83.4	362	118	380	204	251	62.3	17.3	12.2	29.7
MAX	88	66	368	1380	605	1490	659	1300	197	53	25	169
MIN	10	18	31	69	44	148	82	48	19	11	9.9	12
MEAN≠	25.8	29.1	83.4	362	118	380	204	251	62.0	17.3	12.2	29.7
CFSM≠	.40	.45	1.29	5.61	1.83	5.88	3.15	3.89	.96	.27	.19	.46
IN.≠	.46	.50	1.49	6.47	1.91	6.79	3.52	4.49	1.07	.31	.22	.51

CAL YR 1978 TOTAL 45498.0 MEAN 125 MAX 1380 MIN 9.0 MEAN≠ 125 CFSM≠ 1.93 IN.≠ 26.20
WTR YR 1979 TOTAL 48147.9 MEAN 132 MAX 1490 MIN 9.9 MEAN≠ 132 CFSM≠ 2.04 IN.≠ 27.73

≠ Adjusted for change in contents in General Edgar Jadwin Reservoir.

01431500 LACKAWAXEN RIVER AT HAWLEY, PA

LOCATION.--Lat 41°28'34", long 75°10'21", Wayne County, Hydrologic Unit 02040103, on left bank at Church Street Bridge in Hawley, 700 ft (213 m) upstream from Wallenpaupack Creek, and 3,000 ft (914 m) downstream from Middle Creek.

DRAINAGE AREA.--290 mi^2 (751 km^2).

PERIOD OF RECORD.--July 1908 to September 1917, August 1938 to current year. Monthly discharge only for some periods, published in WSP 1302. October 1917 to December 1919, gage heights and discharge measurements only, in reports of Water Supply Commission of Pennsylvania.

REVISED RECORDS.--WSP 1951: 1938-41. WSP 1302: 1909-17. WSP 1432: 1942. WSP 1502: 1956.

GAGE.--Nonrecording gage, water-stage recorder, and crest-stage gage. Datum of gage is 869.00 ft (264.871 m) National Geodetic Vertical Datum of 1929. Prior to 1938, nonrecording gage at same site and datum. August 10, 1938 to August 19, 1955, water-stage recorder and August 20, 1955 to February 13, 1956, nonrecording gage at site 1,000 ft (305 m) downstream at same datum.

REMARKS.--Records fair. Regulation by Prompton Lake (station 01428900) and, at high flow, by General Edgar Jadwin Lake (station 01429400) located 14.9 mi (24.0 km) and 13.0 mi (20.9 km) upstream, respectively. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--50 years (1908-17, 1938-79), 488 ft^3/s (13.82 m^3/s), 22.87 in/yr (581 mm/yr), adjusted for storage since October 1959.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,900 ft^3/s (1,470 m^3/s) Aug. 19, 1955, gage height, 24.8 ft (7.56 m) at present site, 20.6 ft (6.28 m) at former site, from floodmark, from rating curve extended above 12,000 ft^3/s (340 m^3/s) on basis of slope-area measurement at gage height 24.2 ft (7.38 m) at present site, 20.1 ft (6.13 m) at former site; minimum daily, 8 ft^3/s (0.23 m^3/s) Sept. 8, 1909.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a stage of 19.1 ft (5.82 m) at present site, 13.9 ft (4.24 m) at former site, from floodmarks, discharge, 27,600 ft^3/s (782 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,240 ft^3/s (177 m^3/s) Jan. 25, gage height, 8.15 ft (2.484 m); minimum, 36 ft^3/s (1.02 m^3/s) Sept. 2, 3, gage height, 1.41 ft (0.430 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	152	142	747	585	1110	827	967	883	102	61	43
2	41	136	133	3740	504	1270	778	742	724	102	58	37
3	43	122	126	4020	456	1240	953	618	646	95	58	38
4	45	112	142	1870	411	1280	802	778	563	87	61	40
5	54	108	295	1140	375	3690	946	754	463	81	55	40
6	106	104	277	796	321	5670	802	596	434	76	57	322
7	120	99	235	708	358	4100	618	499	388	68	55	461
8	101	96	226	2050	337	2850	514	401	349	62	48	237
9	84	94	754	1750	300	1870	925	358	321	59	43	152
10	77	84	925	1110	280	1650	1700	321	288	55	41	112
11	71	84	590	729	260	2360	1610	318	273	54	47	90
12	72	81	454	516	240	1820	1260	298	266	53	80	76
13	71	77	379	494	230	1340	1020	280	232	52	120	72
14	114	74	322	514	220	1280	1190	284	216	52	90	73
15	252	73	259	573	210	1330	1570	256	198	50	69	84
16	195	73	216	461	200	981	1470	284	179	86	62	84
17	170	73	198	383	190	820	1240	252	163	165	54	67
18	138	118	193	394	190	724	995	207	145	163	52	57
19	136	150	175	350	190	658	778	204	135	157	62	58
20	136	129	160	300	190	624	634	226	118	104	62	54
21	122	116	638	1060	180	624	535	223	108	87	57	67
22	122	106	798	1600	180	646	468	201	99	80	51	319
23	122	101	539	1300	170	664	406	259	114	74	48	295
24	116	118	477	1150	1040	827	354	2010	114	114	45	196
25	110	181	739	5730	1720	2000	321	4510	108	116	47	147
26	101	176	733	4020	2520	2060	329	4410	97	94	50	122
27	229	239	573	2250	1960	1420	995	2920	87	97	47	106
28	341	256	517	1410	1200	1050	2610	2070	87	86	53	99
29	273	165	489	1040	---	1030	1770	1740	94	74	51	121
30	210	142	481	814	---	1070	1260	1530	102	72	47	124
31	176	---	463	676	---	974	---	1170	---	67	46	---
TOTAL	3989	3639	12648	43695	15019	49032	29680	29686	7994	2684	1777	3793
MEAN	129	121	408	1410	536	1582	989	958	266	86.6	57.3	126
MAX	341	256	925	5730	2520	5670	2610	4510	883	165	120	461
MIN	41	73	126	300	170	624	321	201	87	50	41	37
MEAN≠	133	117	422	1399	543	1580	987	965	253	85.6	57.2	128
CFSM≠	.46	.40	1.46	4.82	1.87	5.45	3.40	3.33	.87	.30	.20	.44
IN≠	.53	.45	1.68	5.56	1.95	6.28	3.80	3.84	.97	.34	.23	.49

CAL YR 1978 TOTAL 190503 MEAN 522 MAX 4980 MIN 39 MEAN≠ 523 CFSM≠ 1.80 IN.≠ 24.49
WTR YR 1979 TOTAL 203636 MEAN 558 MAX 5730 MIN 37 MEAN≠ 558 CFSM≠ 1.92 IN.≠ 26.13

≠ Adjusted for change in contents in Prompton Lake and General Edgar Jadwin Reservoir.

LACKAWAXEN RIVER BASIN

01432000 WALLENPAUPACK CREEK AT WILSONVILLE, PA

LOCATION.--At hydroelectric plant of Pennsylvania Power and Light Co., at lower end of penstock, at Kimble, 3 mi (5 km) east of dam which is at lat 41°27'33", long 75°11'08", Pike County, Hydrologic Unit 02040103, at Wilsonville, 1.2 mi (1.9 km) south of Hawley.

DRAINAGE AREA.--228 sq mi (591 sq km).

PERIOD OF RECORD.--October 1909 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1918, 1923-24. WSP 1432: 1920-21. The mean discharge for September 1966 has been corrected to 141 ft³/s (3.99 m³/s), superseding figure published in WDR PA-66.

GAGE.--Daily discharge determined from flow through turbines, computed from records of generator output and flow over roller gates, computed on basis of head on gates. Prior to Nov. 3, 1925, nonrecording gage at site 1,000 ft (300 m) downstream from dam at datum 1,146.78 ft (349.539 m) National Geodetic Vertical Datum, unadjusted.

REMARKS.--Records good. No flow over spillway or roller gates. Flow regulated by Lake Wallenpaupack (station 01431700).

COOPERATION.--Records of generator load, operation of powerplant, net operating head, water-surface elevations in lake and daily discharges furnished by Pennsylvania Power and Light Co., in connection with a Federal Power Commission project.

AVERAGE DISCHARGE.--70 years, 366 ft³/s (10.37 m³/s), 21.77 in/yr (553 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 6,440 ft³/s (182 m³/s) June 30, 1973; no flow at times each year subsequent to Nov. 3, 1925.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	102	.00	.00	958	959	.00	952	1290	.00	18	.00
2	200	57	.00	136	972	953	954	946	671	473	34	.00
3	42	56	.00	1010	960	23	948	925	680	.00	.00	.00
4	.00	.00	.00	728	964	.00	960	942	1790	.00	21	491
5	.00	.00	76	241	963	916	952	.00	936	.00	.00	1210
6	.00	75	119	.00	958	981	949	.00	945	.00	68	1770
7	.00	71	.00	.00	923	951	23	500	845	.00	.00	996
8	.00	54	21	254	436	972	.00	682	1030	.00	10	3.0
9	235	54	.00	493	1150	968	948	709	.00	8.0	21	.00
10	26	51	47	474	932	.00	929	890	.00	.00	262	495
11	63	.00	567	495	944	.00	960	807	953	.00	16	504
12	.00	.00	321	664	939	938	955	.00	943	40	.00	486
13	.00	96	176	94	976	972	475	.00	470	122	.00	456
14	126	25	437	.00	1040	938	.00	481	470	.00	.00	483
15	.00	74	202	703	959	939	.00	130	451	.00	.00	.00
16	116	68	.00	719	957	988	944	174	.00	.00	8.0	.00
17	158	34	33	697	918	956	952	.00	.00	.00	.00	480
18	.00	.00	790	456	924	870	949	282	229	12	.00	487
19	23	.00	154	810	928	939	935	.00	.00	.00	.00	480
20	44	.00	413	72	953	965	960	.00	.00	.00	38	525
21	30	.00	162	.00	985	941	.00	477	49	.00	.00	469
22	.00	.00	104	1160	934	965	.00	.00	21	.00	.00	.00
23	.00	.00	.00	1180	933	898	491	762	.00	.00	.00	.00
24	.00	.00	.00	1780	50	.00	482	1160	.00	.00	.00	968
25	35	46	.00	1750	.00	.00	470	1140	488	.00	30	886
26	.00	.00	14	1780	493	1130	466	87	.00	16	.00	975
27	.00	389	514	1790	990	1530	771	441	.00	.00	.00	982
28	.00	121	83	1600	678	1450	.00	447	395	.00	.00	979
29	.00	724	282	1790	---	1050	.00	1800	56	.00	.00	.00
30	.00	96	.00	1800	---	834	923	1810	.00	.00	.00	35
31	11	---	.00	1790	---	7.0	---	1810	---	46	.00	---
TOTAL	1109.00	2193.00	4515.00	24666.00	23817.00	23953.00	17392.00	18314.00	12712.00	717.00	526.00	14162.00
MEAN	35.8	73.1	146	796	851	773	580	591	424	23.1	17.0	472
MAX	235	724	790	1800	1150	1530	960	1810	1790	473	262	1770
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1978 TOTAL 151232.30 MEAN 414 MAX 1800 MIN .00 CFSM 1.82 IN 24.67
WTR YR 1979 TOTAL 144076.00 MEAN 395 MAX 1810 MIN .00 CFSM 1.73 IN 23.51

LAKES AND RESERVOIRS IN LACKAWAXEN RIVER BASIN

01428900 PROMPTON RESERVOIR.--Lat 41°35'18", long 75°19'39", Wayne County, Hydrologic Unit 02040103, at dam on West Branch Lackawaxen River, 0.3 mi (0.5 km) north of Prompton, 0.4 mi (0.6 km) upstream from highway bridge and 0.5 mi (0.8 km) upstream from Van Auken Creek. DRAINAGE AREA, 59.6 mi² (154 km²). PERIOD OF RECORD, December 1960 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungated bedrock spillway at elevation 1,205.00 ft (367.284 m). Storage began July 1960. Capacity at elevation 1,205.00 ft (367.284 m) is 51,700 acre-ft (63.7 hm³). Ordinary minimum (conservation) pool elevation, 1,125.00 ft (342.900 m), capacity, 3,420 acre-ft (4.22 hm³). Reservoir is used for flood control and recreation. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 8,170 acre-ft (10.1 hm³) June 29, 1973, elevation, 1,138.40 ft (346.984 m); minimum (after first filling), 2,920 acre-ft (3.60 hm³) Sept. 27, 1964, elevation, 1,123.20 ft (342.351 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 5,990 acre-ft (7.39 hm³) Mar. 6, elevation, 1,132.60 ft (345.216 m); minimum, 3,560 acre-ft (4.39 hm³), Aug. 10, elevation, 1,125.22 ft (342.967 m).

01429400 GENERAL EDGAR JADWIN RESERVOIR.--Lat 41°36'44", long 75°15'55", Wayne County, Hydrologic Unit 02040103, at dam on Dyberry Creek, 0.45 mi (0.72 km) upstream from unnamed tributary, 2.4 mi (3.9 km) north of Honesdale, and 2.9 mi (4.7 km) upstream from mouth. DRAINAGE AREA, 64.5 mi² (167.1 km²). PERIOD OF RECORD, October 1959 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungated, concrete spillway at elevation 1,053.00 ft (320.954 m). Storage began in October 1959. Capacity at elevation 1,053.00 ft (320.954 m) is 24,500 acre-ft (30.2 hm³). Reservoir is used for flood control. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 6,520 acre-ft (8.04 hm³) June 19, 1973, elevation, 1,017.40 ft (310.104 m); no storage many times.

EXTREMES FOR CURRENT YEAR: Maximum contents, 3,060 acre-ft (3.77 hm³) Mar. 6, elevation, 1,005.25 ft (306.400 m); no storage many times.

01431700 LAKE WALLENPAUPACK.--Lat 41°27'35", long 75°11'10", Wayne County, Hydrologic Unit 02040103, at dam on Wallenpaupack Creek, at Wilsonville, 1.2 mi (1.9 km) south of Hawley and 1.5 mi (2.4 km) upstream from mouth. DRAINAGE AREA, 228 mi² (591 km²). PERIOD OF RECORD, January 1926 to current year. GAGE, vertical staff. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pennsylvania Power and Light Co.).

Reservoir formed by concrete gravity-type and earthfill dam, with concrete spillway at elevation 1,176.00 ft (358.445 m) in two sections. Spillway equipped with roller gate, 14 ft (4.3 m) high on each section. Storage began Nov. 3, 1925; water in reservoir first reached minimum pool elevation in January 1926. Total capacity at elevation 1,190.00 ft (362.712 m), top of gates, is 209,300 acre-ft (258 hm³), of which 157,800 acre-ft (195 hm³) is controlled storage above elevation 1,160.00 ft (353.568 m), minimum pool. Reservoir is used for generation of hydroelectric power. Figures given herein represent usable contents. Records furnished by Pennsylvania Power and Light Co.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 178,200 acre-ft (220 hm³) Aug. 19-21, 1955, elevation, 1,193.45 ft (363.764 m); minimum (after first filling), 12,280 acre-ft (15.1 hm³) Mar. 28, 1958, elevation, 1,162.60 ft (354.360 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 128,080 acre-ft (158 hm³) May 28, elevation, 1,184.80 ft (361.127 m); minimum, 77,980 acre-ft (96.1 hm³) Feb. 23, elevation, 1,175.60 ft (358.323 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01428900	Prompton Reservoir		01429400	General Edgar	Jadwin Reservoir
Sept. 30	1,125.35	3,520	--	974.68	0	--
Oct. 31	1,126.33	3,790	+ 4.4	975.34	0	0
Nov. 30	1,125.50	3,560	- 3.9	975.75	0	0
Dec. 31	1,128.38	4,420	+ 14.0	976.22	0	0
CAL YR 1978	--	--	+ 1.2	--	--	0
Jan. 31	1,126.25	3,770	- 10.6	977.22	0	0
Feb. 28	1,127.48	4,130	+ 6.5	978.26	5	+ 0.1
Mar. 31	1,127.23	4,050	- 1.3	977.88	0	- 0.1
Apr. 30	1,126.82	3,930	- 2.0	978.23	5	+ 0.1
May 31	1,128.23	4,370	+ 7.2	978.78	16	+ 0.2
June 30	1,125.50	3,560	- 13.6	975.34	0	- 0.3
July 31	1,125.30	3,500	- 1.0	974.73	0	0
Aug. 31	1,125.26	3,490	- 0.2	974.75	0	0
Sept. 30	1,125.57	3,580	+ 1.5	974.98	0	0
WTR YR 1979	--	--	+ 0.1	--	--	0
	01431700	Lake Wallenpaupack				
Sept. 30	1,178.90	95,660	--			
Oct. 31	1,178.60	94,040	- 26.3			
Nov. 30	1,178.20	91,880	- 36.3			
Dec. 31	1,178.20	91,880	0			
CAL YR 1978	--	--	- 26.2			
Jan. 31	1,181.70	110,850	+308.5			
Feb. 28	1,177.10	85,940	-435.5			
Mar. 31	1,180.90	106,460	+333.7			
Apr. 30	1,182.80	116,900	+175.5			
May 31	1,183.90	123,040	+ 99.9			
June 30	1,181.80	111,400	-195.6			
July 31	1,181.50	109,750	- 26.8			
Aug. 31	1,181.40	109,200	- 8.9			
Sept. 30	1,178.90	95,660	-227.6			
WTR YR 1979	--	--	0			

DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, NY

LOCATION.--Lat 41°22'14", long 74°41'52", Pike County, Pa., Hydrologic Unit 02040104, on right bank 250 ft (76 m) downstream from bridge (on U.S. Highways 6 and 209) between Port Jervis, N.Y. and Matamoras, Pa., 1.2 mi (1.9 km) upstream from Neversink River, and 6.5 mi (10.5 km) downstream from Mongaup River. Water-quality sampling site at discharge station.

DRAINAGE AREA.--3,076 mi² (7,967 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1904 to current year.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1031: 1905-36. WRD NY 1971: 1970.

GAGE.--Water-stage recorder. Datum of gage is 415.35 ft (126.599 m) National Geodetic Vertical Datum of 1929. October 1904 to August 13, 1928, nonrecording gage at bridge 250 ft upstream at present datum; operated by U.S. Weather Bureau prior to June 20, 1914.

REMARKS.--Records good. Flow regulated by Lake Wallenpaupack and by Toronto, Cliff Lake, and Swinging Bridge Reservoirs (see Reservoirs in Delaware River Basin) and smaller reservoirs. Large diurnal fluctuations at medium and low flows caused by powerplants on tributary streams. Subsequent to September 1954, entire flow from 371 mi² (961 km²) of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi² (1,176 km²) of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow from these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 233,000 ft³/s (6,600 m³/s) Aug. 19, 1955, gage height, 23.91 ft (7.288 m), from floodmarks in gage house, from rating curve extended above 89,000 ft³/s (2,520 m³/s) on basis of slope-area measurement of peak flow; minimum observed, 175 ft³/s (4.96 m³/s) Sept. 23, 1908, gage height, 0.6 ft (0.18 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--The U.S. Weather Bureau reported a discharge of 205,000 ft³/s (5,810 m³/s) Oct. 10, 1903, gage height, 23.1 ft (7.04 m), from rating curve extended above 70,000 ft³/s (1,980 m³/s) by velocity-area studies; stage on Mar. 8, 1904, was 25.5 ft (7.77 m), ice jam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 68,000 ft³/s (1,930 m³/s) Mar. 6, gage height, 11.88 ft (3.621 m); minimum, 905 ft³/s (25.6 m³/s) Sept. 20, gage height, 1.81 ft (0.552 m); minimum daily, 1,210 ft³/s (34.3 m³/s) July 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1450	1970	1970	2310	6550	8750	8350	9430	12400	1470	1600	1780
2	1530	2070	1650	18000	5660	9130	8230	8430	10200	1880	1680	1730
3	1470	1970	1580	41000	4980	8920	8800	7640	8750	2030	1880	1530
4	1680	1700	1530	17300	4850	7840	8310	7840	8960	1530	1950	1730
5	1720	1680	1930	10400	4790	19300	8230	8830	7450	1400	1370	2270
6	1930	1820	2710	7490	4100	63000	8150	6510	6550	1450	1450	4980
7	1840	1700	2570	6550	4100	47500	7010	6210	5840	1370	1480	7190
8	1370	1680	2480	10800	3600	29700	5910	5700	5250	1400	1320	5180
9	1510	1840	3630	14400	3100	20100	6780	5490	4080	1370	1500	2500
10	1450	1860	7990	10000	3380	15300	11200	5320	2990	1470	1720	2070
11	1730	1500	6550	7760	3100	17500	11300	4950	3610	1530	1990	2500
12	1950	1450	4950	5910	3200	17000	10400	3880	4470	1790	1950	2290
13	1550	1650	4230	5180	2900	13500	10100	3140	4350	1770	2170	1840
14	1630	1600	4080	5110	3000	11700	9690	3290	3370	1750	1480	1810
15	2190	1500	3420	6020	3100	11400	11900	3090	2850	1560	1600	1640
16	2570	1600	2710	5350	3000	9730	12100	2460	2890	1530	1240	2010
17	1950	1450	2570	4850	2900	8800	11700	2290	2190	1840	1340	1750
18	1480	1250	2710	4540	2800	7950	10800	2130	2090	2350	1360	1500
19	1400	1310	2330	3910	2800	7490	9560	2330	1970	2150	1600	1420
20	1430	2110	1860	4470	2800	7080	8590	2110	1810	1810	1600	1390
21	1580	1820	2500	4380	2700	6780	7160	2590	1790	1430	1730	1980
22	1630	1610	3940	11000	2900	6660	5590	2460	1610	1210	1580	2460
23	1430	1660	3370	12400	2800	6660	5590	2420	1370	1510	1430	3040
24	1630	1510	2710	10100	3700	6700	5150	6400	1390	1630	1500	2920
25	1480	1560	2290	29800	6000	13400	4660	23300	1650	1750	1990	2820
26	1580	2010	2420	29600	11900	18000	4110	33100	1780	1610	1470	2400
27	1680	2310	2920	16500	12200	14800	5450	31600	1370	1680	1450	2290
28	3370	1990	3010	12400	9640	12400	13700	23500	1530	1610	1630	2130
29	2640	2050	2480	10300	---	11000	12100	21000	2150	1530	1470	2110
30	2050	2640	1990	8880	---	10700	10300	19800	1750	1420	1510	1630
31	1990	---	1860	7870	---	9840	---	15900	---	1310	1580	---
TOTAL	54820	52870	92940	344580	125570	458430	260920	281540	118380	50140	49300	72490
MEAN	1768	1762	2998	11120	4485	14790	8697	9082	3946	1617	1590	2416
MAX	3370	2640	7990	41000	12200	63000	13700	33100	12400	2350	2170	7190
MIN	1370	1250	1530	2310	2700	6660	4110	2110	1370	1210	1240	1390

CAL YR 1978 TOTAL 1830015 MEAN 5014 MAX 43500 MIN 995
WTR YR 1979 TOTAL 1961980 MEAN 5375 MAX 63000 MIN 1210

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957-60, 1964 to current year.
CHEMICAL DATA: 1958-59 (e), 1964-65 (c), 1966 (a), 1967-68 (c), 1969-76 (d).
MINOR ELEMENTS DATA: 1970 (a), 1972-73 (a), 1974-76 (c).
PESTICIDE DATA: 1974 (a).
ORGANIC DATA: OC--1974 (b), 1975 (d).
NUTRIENT DATA: 1968 (a), 1969-76 (d).
BIOLOGICAL DATA:
Bacteria--1973-76 (d).
Phytoplankton--1974 (b), 1975-76 (c).
Periphyton--1976 (a).
SEDIMENT DATA: 1959 (c), 1976 (c).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1973 to September 1973.
WATER TEMPERATURES: February 1957 to September 1960, January 1973 to September 1973, June 1974 to current year.
SUSPENDED-SEDIMENT DISCHARGE: February 1957 to September 1960, March 1970 to June 1976.

INSTRUMENTATION.--Temperature recorder since January 1973.

REMARKS.--No temperature record Mar. 22, 23, Apr. 9-30, due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1957-59, 1973-79), 29.5°C July 19, 1959, Aug. 3, 1975; minimum (water years 1958-60, 1973, 1975-79), freezing point on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 28.0°C Aug. 5; minimum, freezing point on several days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.0	15.0	15.5	10.0	9.0	9.5	4.0	2.5	3.0	1.0	.5	.5
2	16.5	15.0	16.0	10.0	8.5	9.0	3.0	2.0	2.5	1.0	.5	.5
3	15.5	14.0	15.0	9.5	8.5	9.0	2.5	1.0	1.5	1.0	.5	.5
4	15.0	14.0	14.0	9.5	8.0	9.0	3.0	1.5	2.0	.5	.5	.5
5	14.5	13.5	14.0	9.0	8.0	8.5	3.5	2.5	3.0	.5	.0	.5
6	16.0	14.5	15.0	9.5	8.0	8.5	3.0	2.0	2.5	.5	.5	.5
7	15.0	14.5	15.0	9.5	8.5	9.0	3.0	2.0	2.5	.5	.5	.5
8	14.5	12.5	13.5	9.0	8.5	9.0	4.0	2.5	3.5	.5	.5	.5
9	12.5	11.5	12.0	9.0	8.5	9.0	4.0	3.5	4.0	.5	.5	.5
10	13.0	11.5	12.5	9.0	8.0	8.5	3.5	1.5	2.5	.5	.5	.5
11	14.5	12.5	13.5	9.0	8.5	8.5	1.5	.5	1.0	.5	.5	.5
12	15.0	14.0	14.5	9.0	7.5	8.0	1.0	.0	.5	.5	.5	.5
13	15.5	14.0	15.0	7.5	7.0	7.0	2.0	1.0	1.5	.5	.5	.5
14	15.5	14.0	15.0	8.0	7.0	7.5	1.5	1.0	1.0	.5	.5	.5
15	14.0	11.5	12.5	8.0	8.0	8.0	1.0	.0	.5	.5	.5	.5
16	11.5	10.5	11.0	8.0	7.5	8.0	1.0	.5	.5	.5	.5	.5
17	11.5	10.0	11.0	7.5	7.0	7.0	2.0	.5	1.0	.5	.5	.5
18	11.0	9.5	10.0	9.0	7.5	8.5	1.0	.5	.5	.5	.5	.5
19	11.0	10.0	10.5	8.5	8.0	8.0	1.5	.5	.5	1.0	.5	.5
20	10.5	10.0	10.5	8.0	6.5	7.0	.5	.5	.5	.5	.5	.5
21	11.0	9.5	10.5	7.0	5.5	6.0	.5	.5	.5	.5	.0	.5
22	12.0	10.0	11.0	5.5	4.5	5.0	.5	.5	.5	.5	.0	.5
23	12.5	11.0	11.5	5.0	4.0	4.5	.5	.5	.5	1.0	.5	.5
24	11.5	10.0	10.5	4.5	4.0	4.0	.5	.5	.5	1.0	.5	.5
25	10.5	9.5	10.0	4.5	3.5	4.0	.5	.5	.5	1.0	.5	1.0
26	11.0	10.5	10.5	3.5	1.5	2.5	.5	.5	.5	1.0	.5	.5
27	11.0	10.0	10.5	2.0	1.0	1.0	.5	.5	.5	1.5	1.0	1.5
28	10.5	9.5	10.0	2.5	1.0	1.5	.5	.5	.5	2.0	1.5	1.5
29	10.5	9.5	10.0	3.0	2.0	2.5	.5	.0	.5	2.0	1.5	1.5
30	10.0	8.5	9.0	4.0	2.0	3.0	1.0	.0	.5	1.5	1.0	1.5
31	10.5	8.5	9.5	---	---	---	.5	.5	.5	1.5	1.0	1.0
MONTH	16.5	8.5	12.0	10.0	1.0	6.5	4.0	.0	1.5	2.0	.0	.5

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.0	.5	.5	2.0	.5	1.5	9.5	8.0	8.5	14.0	12.5	13.5
2	.5	.5	.5	2.0	1.5	1.5	8.5	7.0	8.0	13.5	12.0	13.0
3	.5	.5	.5	1.5	1.5	1.5	7.5	6.0	6.5	13.0	12.0	12.5
4	.5	.5	.5	1.5	1.0	1.5	6.0	5.5	5.5	13.0	12.0	12.5
5	.5	.5	.5	2.0	.5	1.5	6.5	5.5	5.5	13.0	11.0	12.0
6	.5	.5	.5	2.0	.5	1.5	6.5	5.0	5.5	14.0	12.0	12.5
7	.5	.5	.5	3.0	2.0	2.5	5.5	4.0	5.0	15.0	12.5	13.5
8	.5	.5	.5	3.0	2.5	3.0	6.0	4.0	5.0	17.0	14.0	15.0
9	1.0	.5	.5	3.5	2.5	3.0	---	---	---	18.5	16.0	17.0
10	.5	.5	.5	4.0	3.0	3.5	---	---	---	19.5	18.0	18.5
11	.5	.5	.5	3.5	2.5	3.5	---	---	---	19.5	18.0	19.0
12	.5	.5	.5	2.5	2.0	2.0	---	---	---	19.5	17.5	18.5
13	.5	.5	.5	2.5	1.0	2.0	---	---	---	19.0	17.5	18.0
14	.5	.5	.5	5.5	2.5	3.0	---	---	---	18.0	17.5	18.0
15	.5	.5	.5	3.5	2.5	3.0	---	---	---	18.5	16.5	17.5
16	.5	.5	.5	2.5	1.5	2.0	---	---	---	20.0	17.5	18.0
17	.5	.5	.5	4.5	1.5	2.0	---	---	---	19.5	16.5	18.0
18	.5	.5	.5	4.0	2.5	3.0	---	---	---	19.0	16.5	17.5
19	.5	.5	.5	5.0	3.0	4.0	---	---	---	17.5	16.0	16.5
20	.5	.5	.5	6.0	4.0	5.0	---	---	---	17.5	15.5	16.0
21	.5	.5	.5	7.0	5.0	6.0	---	---	---	18.5	17.5	17.5
22	1.0	.5	.5	---	---	---	---	---	---	18.0	16.5	17.5
23	.5	.5	.5	---	---	---	---	---	---	19.0	16.5	17.5
24	1.0	.0	.5	8.5	7.0	8.0	---	---	---	16.5	14.5	16.0
25	1.0	.0	.5	9.0	7.5	8.0	---	---	---	14.5	14.0	14.5
26	.5	.5	.5	7.5	5.0	6.5	---	---	---	14.0	13.5	14.0
27	1.0	.5	.5	5.0	4.0	4.5	---	---	---	13.5	13.0	13.5
28	1.5	.5	1.0	5.0	3.5	4.5	---	---	---	13.0	12.0	13.0
29	---	---	---	6.0	4.5	5.0	---	---	---	13.5	12.5	13.5
30	---	---	---	7.0	6.0	6.5	---	---	---	15.0	13.5	14.0
31	---	---	---	8.0	6.5	7.5	---	---	---	15.0	14.0	14.5
MONTH	1.5	.0	.5	9.0	.5	3.5	9.5	4.0	6.0	20.0	11.0	15.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.5	14.5	15.5	22.5	20.5	21.5	26.5	24.5	25.5	24.0	21.5	23.0
2	18.0	16.0	17.0	21.5	20.5	21.0	26.0	24.0	25.0	23.5	22.0	22.5
3	18.0	17.0	17.5	23.0	20.0	21.5	26.5	24.5	25.5	24.0	22.5	23.0
4	18.0	17.5	18.0	21.0	19.5	20.5	27.5	24.5	26.0	24.5	22.5	23.5
5	18.0	17.5	18.0	20.0	18.0	19.0	28.0	25.5	26.5	23.5	22.0	22.5
6	19.0	17.5	18.5	20.0	17.0	19.0	27.0	24.5	26.0	22.0	20.5	21.0
7	19.0	17.5	18.0	20.5	17.5	19.0	25.5	22.5	24.5	21.5	20.0	20.5
8	19.5	17.5	19.0	22.5	19.0	21.0	25.0	23.0	24.0	20.5	19.5	20.0
9	20.0	19.0	20.0	24.0	20.5	22.0	25.0	22.0	23.5	20.0	18.0	19.0
10	20.5	19.5	20.0	22.5	20.0	21.5	24.5	22.5	23.5	20.0	17.5	19.0
11	22.5	20.5	21.5	24.0	21.0	22.5	23.5	21.5	22.5	20.5	18.5	20.0
12	20.5	16.5	18.5	24.5	21.0	23.0	21.0	19.0	20.0	20.5	18.5	19.5
13	18.0	16.0	17.0	26.0	22.0	24.0	20.0	18.0	19.0	20.5	18.5	19.5
14	18.5	16.0	17.0	26.5	23.5	25.0	20.0	19.0	19.0	21.0	19.5	20.5
15	19.5	17.5	18.5	27.0	24.5	25.5	19.0	18.0	18.5	20.5	19.0	19.5
16	22.0	19.0	20.0	26.5	23.5	25.0	19.0	17.0	18.0	19.5	17.5	19.0
17	23.0	19.5	21.0	26.5	23.0	24.5	20.0	17.0	18.5	20.0	17.5	19.0
18	23.5	20.5	21.5	24.0	22.5	23.5	19.0	17.5	18.0	20.0	18.0	19.5
19	23.5	20.0	21.5	24.5	22.0	23.0	19.5	17.5	18.5	19.5	17.0	18.5
20	23.0	19.0	21.0	24.5	22.0	23.0	21.0	18.5	20.0	18.0	16.0	17.0
21	23.0	19.5	21.5	25.5	22.0	24.0	21.5	19.5	20.5	17.0	15.5	16.0
22	22.0	19.5	21.0	26.0	24.0	25.0	23.0	20.5	22.0	16.5	16.0	16.0
23	22.0	20.0	21.0	26.0	23.5	25.0	23.0	21.0	22.0	16.5	15.5	16.0
24	22.0	19.0	20.0	25.5	22.0	24.0	22.5	21.5	22.0	16.5	15.0	15.5
25	20.5	17.0	18.5	26.5	23.0	24.5	23.5	22.0	22.5	16.0	14.5	15.5
26	21.5	17.5	19.5	26.0	23.5	25.0	24.5	21.5	23.0	17.0	15.0	16.0
27	22.5	18.5	20.5	26.5	23.0	25.0	24.5	23.0	24.0	17.5	15.5	16.5
28	22.5	19.5	21.0	26.0	23.0	25.0	25.0	23.0	24.0	17.0	16.0	16.5
29	22.0	19.5	20.5	25.5	24.0	24.5	24.5	23.5	24.0	17.5	16.5	17.0
30	21.5	19.5	20.5	26.0	23.5	25.0	25.0	23.0	24.0	17.5	17.0	17.5
31	---	---	---	26.5	23.5	25.0	25.0	23.0	24.0	---	---	---
MONTH	23.5	14.5	19.5	27.0	17.0	23.0	28.0	17.0	22.5	24.5	14.5	19.0

01438500 DELAWARE RIVER AT MONTAGUE, NJ

LOCATION.--Lat 41°18'33", long 74°47'44", Sussex County, Hydrologic Unit 02040104, on right bank 0.4 mi (0.6 km) upstream from toll bridge on U.S. Route 206 at Montague, 0.8 mi (1.3 km) downstream from Sawkill Creek, and at mile 246.3 (396.3 km). Water-quality samples collected from toll bridge.

DRAINAGE AREA.--3,480 mi² (9,013 km²).

PERIOD OF RECORD.--March 1936 to September 1939 (gage heights only, published as "at Milford, PA"). October 1939 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 369.93 ft (112.755 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 9, 1940, nonrecording gage on upstream side of left span of subsequently dismantled bridge at present site at datum 70 ft (21.3 m) lower.

REMARKS.--Water-discharge records good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--40 years, 5,961 ft³/s (168.8 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 250,000 ft³/s (7,080 m³/s) Aug. 19, 1955 (gage height, 35.15 ft or 10.714 m), from rating curve extended above 90,000 ft³/s (2,550 m³/s) on basis of flood-routing study; minimum, 382 ft³/s (10.8 m³/s) Aug. 24, 1954, gage height, 3.83 ft (1.167 m); minimum daily, 412 ft³/s (11.7 m³/s) Aug. 23, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage during period 1903-79, 35.5 ft (10.82 m) Oct. 10, 1903, present datum, from floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 62,600 ft³/s (1,773 m³/s) Mar. 6, gage height, 17.58 ft (5.358 m); minimum, 1,150 ft³/s (32.6 m³/s) Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1710	2140	2280	2500	7760	10300	9530	10500	13500	1890	1810	1950
2	1710	2280	1920	15800	6750	10600	9180	9410	11300	1940	1910	2000
3	1740	2220	1820	42200	5820	10600	9840	8540	9700	2520	2110	1810
4	1860	1990	1860	20900	5670	9440	9350	8750	9740	1900	1850	1850
5	1870	1930	2090	14200	5440	17900	9210	9020	8320	1660	1560	2260
6	2200	1890	2990	9230	4600	57200	9230	7350	7310	1660	1640	6390
7	2230	1970	2930	7970	4600	47700	7990	6900	6550	1690	1670	8770
8	1720	1780	2800	12100	4100	31400	6770	6450	5850	1640	1530	6830
9	1620	1980	3880	16800	3600	22500	7360	6180	4930	1540	1640	3470
10	1750	2030	8950	12400	3700	17500	12000	5950	3570	1710	1800	2490
11	1840	1800	7410	9830	3500	19400	12400	5590	4170	1690	2210	3060
12	2190	1580	5760	7160	3600	19100	11500	4550	5900	1960	2190	2770
13	1900	1670	4940	6290	3300	15200	11100	3750	5300	1980	2510	2300
14	1920	1890	4770	5800	3300	13200	10700	3770	4140	2000	2020	2140
15	2510	1620	4220	6400	3400	12900	13200	3800	3680	1790	1860	2170
16	2870	1650	3330	6000	3400	11100	13300	3050	3500	1770	1670	2100
17	2310	1740	3070	5200	3200	10100	12800	2860	2730	2100	1560	2000
18	1860	1530	2880	4900	3200	9190	11900	2460	2530	2710	1620	1910
19	1680	1530	3220	4200	3100	8520	10600	2960	2500	2640	1850	1700
20	1690	2210	2190	4900	3200	8070	9580	2790	2170	2110	1860	1600
21	1820	2090	3110	5000	3100	7750	8220	2930	2180	1820	2000	1750
22	1880	1830	4250	11000	3200	7610	6420	3160	2060	1500	1860	3120
23	1700	1840	4000	13900	3200	7570	6200	2750	1760	1720	1700	3680
24	1810	1810	3240	11400	4300	7650	5880	7590	1740	2070	1750	3360
25	1650	1750	2600	29900	7200	14900	5330	23500	1770	2020	2160	3270
26	1760	2220	2700	32700	12000	19700	4770	31900	2200	1900	1910	2810
27	1830	2350	3000	19700	14200	16300	6460	32300	1620	1960	1720	2650
28	3460	2430	3500	14700	11300	13700	14700	25100	1790	1970	1850	2470
29	3000	2120	2800	12200	---	12200	13700	22400	2360	1820	1750	2590
30	2320	3030	2300	10500	---	11700	11400	20400	2170	1630	1750	2000
31	2170	---	2100	9340	---	10900	---	17400	---	1580	1780	---
TOTAL	62580	58900	106910	385120	143740	491900	290620	304060	137040	58890	57100	87270
MEAN	2019	1963	3449	12420	5134	15870	9687	9808	4568	1900	1842	2909
MAX	3460	3030	8950	42200	14200	57200	14700	32300	13500	2710	2510	8770
MIN	1620	1530	1820	2500	3100	7570	4770	2460	1620	1500	1530	1600

CAL YR 1978 TOTAL 2124890 MEAN 5822 MAX 52400 MIN 1320
WTR YR 1979 TOTAL 2184130 MEAN 5984 MAX 57200 MIN 1500

01439500 BUSH KILL AT SHOEMAKERS, PA

LOCATION.--Lat 41°05'17", long 75°02'17", Monroe County, Hydrologic Unit 02040104, on right bank 30 ft (9 m) downstream from highway bridge, 0.1 mi (0.2 km) downstream from Saw Creek, 0.7 mi (1.1 km) northwest of Shoemakers, and 2 mi (3.2 km) southwest of Bushkill.

DRAINAGE AREA.--117 mi² (303 km²).

PERIOD OF RECORD.--October 1908 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1928, published as Bushkill Creek near Shoemakers; October 1928 to September 1952, published as Bushkill Creek at Shoemakers.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1202: 1921, 1932(M), 1933, 1935-36, 1938(M), 1939-40, 1942, 1945, 1946(M), 1948(M). WSP 1302: 1909-15, 1920(M), 1922-29.

GAGE.--Water-stage recorder. Datum of gage is 421.13 ft (128.360 m) National Geodetic Vertical Datum, unadjusted. Sept. 19, 1908 to Aug. 12, 1938, nonrecording gage, and Aug. 13, 1938 to June 20, 1956, water-stage recorder at site 50 ft (15 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--71 years, 237 ft³/s (6.712 m³/s), 27.49 in/yr (698 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,400 ft³/s (663 m³/s) Aug. 19, 1955, gage height, 13.95 ft (4.252 m), from floodmarks, from rating curve extended above 2,600 ft³/s (73.6 m³/s) on basis of slope-area measurement of peak flow; minimum, 2.6 ft³/s (0.074 m³/s) Sept. 25, 26, 27, 1964, gage height, 0.72 ft (0.219 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,100 ft³/s (31.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 2	2130	1,660	47.0	3.93	1.198	Feb. 26	0600	1,640	46.4	3.91	1.192
Jan. 8	1130	1,290	36.5	3.50	1.067	Mar. 6	1730	1,760	49.8	4.05	1.234
Jan. 21	2330	1,240	35.1	3.44	1.049	May 26	0630	1,660	47.0	3.93	1.198
Jan. 25	1000	*2,830	80.1	*5.12	1.561						

Minimum discharge, 15 ft³/s (0.42 m³/s) Nov. 13; minimum gage height, 1.08 ft (0.329 m) Oct. 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	25	85	200	496	643	369	468	529	108	28	45
2	19	24	79	1130	414	639	387	402	448	98	58	41
3	17	23	77	1310	372	634	402	366	392	88	118	45
4	18	22	103	856	338	590	365	394	374	79	98	44
5	21	21	154	706	290	870	383	347	316	93	73	36
6	62	22	144	585	270	1540	343	308	282	75	58	568
7	72	22	132	541	250	1480	302	279	246	64	47	611
8	49	21	132	1150	230	1180	285	259	230	58	38	410
9	38	20	239	954	210	963	378	241	206	53	31	301
10	32	20	290	735	200	849	570	226	195	49	28	234
11	31	23	229	631	190	941	515	209	246	45	32	191
12	28	25	214	539	180	769	453	195	250	42	84	157
13	27	25	183	450	170	646	410	217	195	39	127	135
14	41	25	173	400	160	596	533	241	167	42	100	148
15	49	25	159	350	150	551	618	219	148	41	84	206
16	44	25	150	300	150	455	543	225	138	41	70	164
17	36	28	143	270	140	413	479	197	130	49	58	141
18	32	113	137	250	140	381	426	182	121	75	53	127
19	31	125	129	230	140	348	378	202	118	75	58	116
20	30	93	211	250	150	324	341	267	103	51	51	103
21	27	78	234	962	140	302	313	238	93	42	44	130
22	27	71	175	1050	140	288	290	205	91	36	38	519
23	26	69	171	771	200	276	277	300	100	32	34	404
24	25	116	167	855	626	348	253	1090	95	32	44	306
25	24	128	174	2580	1160	730	237	1410	86	36	191	255
26	24	111	153	1940	1320	639	242	1550	79	32	138	221
27	25	102	136	1490	1060	531	513	1270	73	30	105	191
28	27	98	144	1200	780	459	817	1030	79	34	84	177
29	27	92	140	951	---	455	667	850	100	30	68	198
30	26	88	130	756	---	430	548	808	100	34	62	195
31	25	---	120	618	---	396	---	658	---	34	53	---
TOTAL	978	1680	4907	25010	10066	19666	12637	14853	5730	1637	2155	6419
MEAN	31.5	56.0	158	807	360	634	421	479	191	52.8	69.5	214
MAX	72	128	290	2580	1320	1540	817	1550	529	108	191	611
MIN	17	20	77	200	140	276	237	182	73	30	28	36
CFSM	.27	.48	1.35	6.90	3.08	5.42	3.60	4.09	1.63	.45	.59	1.83
IN.	.31	.53	1.56	7.95	3.20	6.25	4.02	4.72	1.82	.52	.69	2.04

CAL YR 1978 TOTAL 95005 MEAN 260 MAX 3100 MIN 13 CFSM 2.22 IN 30.21
WTR YR 1979 TOTAL 105746 MEAN 290 MAX 2580 MIN 17 CFSM 2.48 IN 33.62

01440090 DELAWARE RIVER NEAR EAST STROUDSBURG, PA (NEAR TOCKS ISLAND DAMSITE)

LOCATION.--Lat 41°02'40", long 75°01'42", Monroe County, Hydrologic Unit 02040104, on right bank opposite Roxono Island, 0.1 mi (0.2 km) upstream from mouth of Vancampens Brook, and 4.4 mi (7.0 km) northeast of East Stroudsburg.

DRAINAGE AREA.--3,830 mi^2 (9,920 km^2), approximately.

PERIOD OF RECORD.--October 1966 to May 1973, October 1973 to January 1979 (discontinued).

REMARKS.--Discharge records are obtained from 01440200 Delaware River below Tocks Island damsite near Delaware Water Gap, PA.

WATER-QUALITY DATA, NOVEMBER 1978 TO JANUARY 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV										
01...	1245	80	7.1	10.0	3	12.2	30	--	7	5
13...	1000	115	7.1	9.0	1	12.3	--	--	E10	E1
17...	1000	--	--	--	--	--	--	--	--	--
27...	1345	100	7.2	2.5	1	14.0	--	--	20	E2
DEC										
21...	1345	70	7.1	2.0	4	14.2	--	64	160	E14
JAN										
04...	1330	57	7.1	.0	6	13.0	--	42	400	250

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
NOV									
01...	54	15	0	12	1.9	11	4.9	.15	.35
13...	82	--	--	--	--	--	--	.31	.05
17...	--	--	--	--	--	--	--	--	--
27...	57	--	--	--	--	--	--	.33	.02
DEC									
21...	58	--	--	--	--	--	--	.43	.04
JAN									
04...	54	10	0	8	1.3	11	5.6	.47	.04

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CHLOROPHYLL A PHYTOPLANKTON, UNCORR. (UG/L)	CHLOROPHYLL B PHYTOPLANKTON, UNCORR. (UG/L)	CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L)
NOV									
01...	.31	.66	.81	.000	--	2.48	3.62	--	--
13...	.21	.26	.57	.010	5.1	--	--	--	--
17...	--	--	--	--	--	--	--	2.12	.000
27...	.77	.79	1.1	.020	2.9	--	--	.000	.000
DEC									
21...	.23	.27	.70	.020	5.1	--	--	2.00	.000
JAN									
04...	.38	.42	.89	.050	6.4	--	--	3.02	.000

E--Estimated

DELAWARE RIVER BASIN

01440200 DELAWARE RIVER BELOW TOCKS ISLAND DAMSITE, NEAR DELAWARE WATER GAP, PA

LOCATION.--Lat 41°00'42", long 75°05'09", Warren County, Hydrologic Unit 02040105, on left bank 40 ft (12 m) streamward from River Road, 1.0 mi (1.6 km) downstream from Tocks Island, 3.7 mi (6.0 km) northeast of Delaware Water Gap, PA, 4.0 mi (6.4 km) upstream from bridge on Interstate Highway 80, and at channel mile 216.1 (347.7 km).

DRAINAGE AREA.--3,850 mi² (9,970 km²) approximately.

PERIOD OF RECORD.--May 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 293.64 ft (89.501 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records poor. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--15 years, 6,653 ft³/s (188.4 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103,000 ft³/s (2,920 m³/s) June 30, 1973, gage height, 23.82 ft (7.260 m); minimum daily, 580 ft³/s (16.4 m³/s) July 7, 8, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 73,000 ft³/s (2,067 m³/s) Jan. 26, maximum gage height, 18.59 ft (5.666 m) Jan. 23, result of ice jam; minimum daily discharge, 1,530 ft³/s (43.3 m³/s)July 23.

Note.--Doubtful or no gage-height record Dec. 9 to July 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2000	2850	2980	3120	11500	14000	11000	12700	17100	2760	1950	2020
2	1750	2520	2630	11000	10900	14200	10300	11300	14100	2370	2110	2020
3	1940	2470	2300	54700	9750	14300	10800	10200	12100	3090	2350	2090
4	1730	2420	2250	32800	8590	12400	10800	9970	11600	2610	2300	1890
5	2070	2230	2420	20200	7600	17000	10400	10800	10900	2230	2070	2250
6	2350	2020	3310	13200	6700	58000	10600	8970	9600	2000	1890	5700
7	2550	2300	3620	10300	6400	55500	9660	7800	8700	2110	1970	10900
8	2250	2020	3620	13800	6600	39000	7760	7680	7600	1970	1890	10400
9	1680	2090	4320	23100	5800	28700	7880	7210	6700	1920	1700	5360
10	1940	2250	9180	18300	5200	21900	12600	6860	4500	2000	1920	3650
11	1750	2270	9440	13000	5400	21100	14600	6700	4900	2060	2370	3650
12	2180	1730	7720	11000	5000	23500	13600	5890	7200	2100	2500	3330
13	2370	1760	6340	9200	5100	16900	12800	4700	6750	2410	3120	2950
14	2090	2110	5960	8800	5000	15400	12300	4600	5760	2440	2950	2520
15	2450	1800	5790	8600	5100	13700	14900	4910	5150	2210	2040	2830
16	3200	1800	4670	8500	5600	12700	15800	4140	4490	2030	2260	2230
17	3030	1970	3970	7600	5000	12100	14700	3730	3900	2410	1620	2920
18	2370	1970	3870	7000	4200	11200	14000	3290	3540	2780	1680	2550
19	1970	1920	3900	6200	4000	10300	12500	3430	3560	3430	1800	2090
20	1860	2110	2830	6000	4600	9850	11300	3930	3060	2660	2040	1890
21	1940	2690	3280	8000	4800	9460	10300	3730	2950	2400	2000	1940
22	2090	2300	4560	15000	4700	9020	7800	4110	2980	1780	2070	3680
23	2090	2110	5150	21000	4600	8910	7030	3650	2520	1530	1860	4980
24	1830	2320	3850	18000	8000	9060	6700	8300	2400	2200	1700	4840
25	2040	2160	2900	45000	11000	13400	6440	27200	2320	2180	2180	4460
26	1780	2420	3020	56600	16800	22800	6060	39500	2920	2240	2780	3760
27	2020	2780	3470	35400	18600	19900	6880	42200	2250	2220	1940	3430
28	2690	2980	3890	24600	15600	16300	14600	32100	2200	2240	1940	3140
29	3930	2550	2970	18600	---	14300	18000	27400	2370	2150	2020	3230
30	2950	3150	2540	15100	---	13200	13800	25100	3090	2010	1630	2830
31	2470	---	2360	13100	---	12800	---	21900	---	1890	1860	---
TOTAL	69360	67690	129310	556820	212340	572900	335910	374020	177210	70450	64710	109530
MEAN	2237	2256	4171	17960	7584	18480	11200	12070	5907	2273	2087	3651
MAX	3930	3150	9440	56600	18600	58000	18000	42200	17100	3430	3120	10900
MIN	1680	1730	2250	3120	4000	8910	6060	3290	2200	1530	1620	1890
CFSM	.58	.59	1.08	4.67	1.97	4.80	2.91	3.14	1.53	.59	.54	.95
IN.	.67	.65	1.25	5.38	2.05	5.54	3.25	3.61	1.71	.68	.63	1.06

CAL YR 1978 TOTAL 2492210 MEAN 6828 MAX 66100 MIN 1430 CFSM 1.77 IN 24.08
WTR YR 1979 TOTAL 2740250 MEAN 7508 MAX 58000 MIN 1530 CFSM 1.95 IN 26.48

01440272 BUCK HILL CREEK AT BUCK HILL FALLS, PA

LOCATION.--Lat 41°11'31", long 75°17'13", Monroe County, Hydrologic Unit 02040104, on right bank 150 ft (46 m) upstream from pumping station at Buck Hill Falls, 0.1 mi (0.2 km) downstream from small tributary on right bank, and 0.9 mi (1.4 km) upstream from Griscom Creek.

DRAINAGE AREA.--5.76 mi^2 (14.92 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,290 ft (393 m), from topographic map.

REMARKS.--Records good except for periods of no gage height record Oct. 1-Feb. 23, which are poor. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,980 ft^3/s (141 m^3/s) Jan. 9, 1978, gage height, 3.93 ft (1.908 m), from floodmarks; minimum daily discharge, 1.1 ft^3/s (0.031 m^3/s) Nov. 10, 11, 13, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 279 ft^3/s (7.90 m^3/s) Sept. 6, gage height, 3.93 ft (1.198 m); minimum daily discharge, 1.1 ft^3/s (0.031 m^3/s) Nov. 10, 11, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	1.3	4.0	25	20	19	21	24	23	7.9	2.9	2.1
2	1.8	1.3	3.5	100	18	19	24	22	21	7.2	2.9	2.1
3	1.8	1.3	4.5	50	16	19	23	22	20	6.6	2.8	2.5
4	2.0	1.3	9.0	25	15	19	22	23	18	7.0	2.7	2.2
5	3.5	1.3	6.5	22	13	55	23	20	17	6.8	2.5	2.2
6	7.0	1.3	6.1	20	12	104	21	19	17	6.0	2.5	126
7	3.5	1.2	5.9	30	12	62	20	18	16	5.5	2.5	35
8	2.5	1.2	6.7	80	11	46	19	17	15	5.3	2.3	16
9	2.0	1.2	14	35	10	38	22	16	14	5.1	2.3	11
10	1.7	1.1	12	25	9.5	42	25	15	14	5.1	2.4	8.5
11	1.5	1.1	9.6	20	9.0	49	25	14	15	5.1	3.4	7.2
12	1.5	1.2	8.7	18	8.5	35	24	15	14	4.9	5.7	6.6
13	1.5	1.1	8.4	17	9.0	29	22	16	12	4.6	4.3	6.2
14	4.3	1.2	8.0	20	9.0	33	30	15	12	4.5	3.0	15
15	3.4	1.2	7.4	15	8.5	29	28	14	11	4.4	2.7	14
16	1.9	1.2	7.3	14	8.0	25	25	15	10	5.8	2.5	10
17	1.8	2.2	7.4	13	7.5	23	22	13	10	5.3	2.4	8.8
18	1.6	12	7.0	12	7.0	22	21	13	9.7	4.6	2.5	8.3
19	1.6	5.6	6.7	11	7.0	21	20	16	9.0	4.4	2.7	8.2
20	1.6	4.1	6.6	10	7.0	20	18	28	8.6	4.3	2.4	7.4
21	1.5	3.5	10	40	7.0	20	17	21	8.2	4.1	2.3	16
22	1.5	2.6	8.3	60	6.5	20	17	18	8.4	3.4	2.2	36
23	1.5	2.7	7.4	25	9.0	19	16	25	8.8	3.2	2.2	20
24	1.4	6.5	7.0	50	20	35	15	56	7.8	4.5	3.5	15
25	1.3	4.5	8.0	141	25	56	15	80	7.3	3.5	7.6	13
26	1.3	3.5	6.5	54	32	39	18	70	6.9	3.6	3.6	12
27	2.9	3.8	6.5	41	21	29	53	42	6.8	3.6	2.8	11
28	1.8	4.0	6.0	32	19	25	53	35	7.1	3.1	2.6	11
29	1.5	3.5	6.0	27	---	26	34	30	7.3	3.3	2.4	13
30	1.3	4.5	6.0	24	---	24	27	33	9.6	3.2	2.3	12
31	1.3	---	6.0	21	---	23	---	27	---	3.0	2.2	---
TOTAL	65.8	81.7	227.0	1077	356.5	1025	720	792	364.5	148.9	91.1	458.3
MEAN	2.12	2.72	7.32	34.7	12.7	33.1	24.0	25.5	12.2	4.80	2.94	15.3
MAX	7.0	12	14	141	32	104	53	80	23	7.9	7.6	126
MIN	1.3	1.1	3.5	10	6.5	19	15	13	6.8	3.0	2.2	2.1
CFSM	.37	.47	1.27	6.02	2.21	5.75	4.17	4.43	2.12	.83	.51	2.66
IN.	.42	.53	1.47	6.95	2.30	6.62	4.65	5.11	2.35	.96	.59	2.96

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CAL YR 1978  TOTAL  6876.5   MEAN 18.8   MAX 994   MIN 1.1   CFSM 3.26   IN 44.42
WTR YR 1979  TOTAL  5407.8   MEAN 14.8   MAX 141   MIN 1.1   CFSM 2.57   IN 34.92
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BRODHEAD CREEK BASIN

01440272 BUCK HILL CREEK AT BUCK HILL FALLS, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: November 1977 to June 1979 (discontinued).

REMARKS.--Interruptions in the record were due to malfunctions of the instrument. Stream ice-covered during some periods of winter months.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 21.0°C July 23, 1978; minimum, freezing point on several days during winter months.

TEMPERATURE (°C) OF WATER, OCTOBER 1978 TO JUNE 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.5	12.5	13.0							---	---	---
2	14.0	11.5	12.5							---	---	---
3	13.5	10.5	12.0							---	---	---
4	12.5	12.0	12.0							---	---	---
5	13.5	11.5	12.5							---	---	---
6	14.0	12.0	12.5							---	---	---
7	12.5	11.0	11.5							---	---	---
8	11.5	9.5	10.5							---	---	---
9	12.5	9.0	10.0							---	---	---
10	13.0	9.0	10.5							---	---	---
11	14.0	10.5	12.0							.5	.0	.0
12	13.5	12.0	12.5							.5	.0	.0
13	13.5	11.5	12.5							3.0	.5	2.0
14	12.5	10.5	12.0							4.0	1.5	3.5
15	11.0	9.0	9.5							1.0	.0	.5
16	11.0	8.5	9.5							2.5	.0	1.0
17	11.0	8.5	10.0							1.5	.0	.5
18	11.0	10.5	10.5							1.5	.0	.5
19	10.5	10.0	10.5							.0	.0	.0
20	10.5	10.5	10.5							.5	.0	.0
21	12.0	8.5	10.0							2.5	.5	1.5
22	12.5	9.0	11.0							3.5	2.0	2.5
23	13.5	10.5	12.0							3.5	1.0	2.5
24	12.0	12.0	12.0							3.5	1.5	2.5
25	12.0	9.5	10.5							---	---	---
26	10.5	9.5	10.5							---	---	---
27	10.5	9.5	10.0							---	---	---
28	9.5	8.0	9.0							---	---	---
29	9.0	8.5	9.0							---	---	---
30	---	---	---							---	---	---
31	---	---	---							---	---	---
MONTH	14.5	8.0	11.0							4.0	.0	1.0

BRODHEAD CREEK BASIN

01440272 BUCK HILL CREEK AT BUCK HILL FALLS, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	4.5	1.5	3.0	9.0	7.0	7.5	12.0	7.0	9.5
2	---	---	---	4.0	2.5	3.0	7.0	5.5	6.0	12.0	6.5	9.0
3	---	---	---	3.5	2.5	3.0	7.0	5.0	6.0	10.5	7.0	8.5
4	---	---	---	3.5	2.5	3.0	5.5	4.0	4.5	11.5	8.0	9.5
5	---	---	---	3.5	2.5	3.5	8.0	4.5	5.5	12.0	7.0	9.0
6	---	---	---	2.5	2.0	2.0	7.0	2.5	5.0	12.5	7.0	9.5
7	---	---	---	4.0	2.0	2.5	7.0	2.0	4.0	14.0	7.5	10.5
8	---	---	---	4.0	2.0	2.5	7.0	2.0	4.0	15.5	9.0	12.0
9	---	---	---	5.0	2.0	3.5	4.0	3.0	3.5	16.5	10.5	13.0
10	---	---	---	4.5	3.0	3.5	7.5	3.0	4.5	15.0	11.0	13.0
11	---	---	---	3.5	1.0	2.5	8.5	2.5	5.5	16.0	11.5	13.0
12	---	---	---	3.5	.5	2.0	7.5	4.0	6.0	12.0	11.0	11.5
13	---	---	---	4.5	1.5	3.0	7.0	5.0	6.0	12.5	11.0	11.5
14	---	---	---	5.0	2.5	4.0	5.5	4.5	5.0	12.0	10.5	11.0
15	---	---	---	3.0	.5	1.5	7.0	5.0	6.0	14.5	9.5	12.0
16	---	---	---	4.0	.5	2.0	7.0	4.5	5.5	13.0	9.5	11.5
17	---	---	---	5.5	2.0	3.5	7.0	5.0	6.0	14.0	9.0	11.0
18	---	---	---	6.5	2.5	4.0	9.5	4.0	6.5	11.0	9.0	10.0
19	---	---	---	6.5	2.0	4.0	9.5	4.0	6.5	11.0	10.5	10.5
20	---	---	---	7.0	2.5	4.5	10.5	4.0	7.0	13.5	10.5	11.5
21	---	---	---	8.0	3.5	5.5	11.0	4.5	7.5	11.5	10.5	11.0
22	2.5	2.0	2.0	9.0	3.5	6.0	11.5	6.0	8.5	14.0	10.0	11.5
23	2.0	2.0	2.0	9.0	4.0	6.5	12.5	7.0	9.5	10.5	9.5	10.0
24	3.0	1.0	2.0	7.0	6.0	6.5	11.0	7.0	9.0	11.5	10.5	11.0
25	2.5	2.0	2.0	6.5	4.0	5.0	12.5	8.0	10.0	11.5	10.5	11.0
26	2.0	1.5	2.0	5.0	2.5	4.0	10.5	9.0	9.5	11.5	9.5	10.5
27	2.5	1.5	2.0	5.5	2.0	3.5	10.0	9.0	9.5	10.0	9.0	9.5
28	4.0	1.5	2.5	6.5	2.0	4.0	12.0	8.5	9.5	12.0	9.0	10.0
29	---	---	---	7.5	4.0	5.5	12.0	7.5	9.0	12.0	9.0	10.0
30	---	---	---	8.5	5.5	7.0	12.0	7.0	9.0	12.5	9.5	10.5
31	---	---	---	9.5	6.5	8.0	---	---	---	13.0	10.0	11.0
MONTH	4.0	1.0	2.0	9.5	.5	4.0	12.5	2.0	6.5	16.5	6.5	10.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.0	9.5	11.5									
2	11.5	11.0	11.0									
3	12.5	10.5	11.0									
4	14.0	10.5	12.0									
5	14.5	10.0	12.0									
6	12.0	10.5	11.5									
7	14.5	10.5	12.5									
8	14.0	11.5	12.5									
9	12.5	11.5	12.0									
10	12.5	11.5	12.0									
11	12.0	10.0	11.5									
12	14.0	9.0	11.0									
13	14.0	9.0	11.0									
14	10.5	9.0	9.5									
15	---	---	---									
16	---	---	---									
17	---	---	---									
18	---	---	---									
19	---	---	---									
20	---	---	---									
21	---	---	---									
22	---	---	---									
23	---	---	---									
24	---	---	---									
25	---	---	---									
26	---	---	---									
27	---	---	---									
28	---	---	---									
29	---	---	---									
30	---	---	---									
31	---	---	---									
MONTH	14.5	9.0	11.5									

BRODHEAD CREEK BASIN

01440400 BRODHEAD CREEK NEAR ANALOMINK, PA

LOCATION.--Lat 41°05'05", long 75°12'54", Monroe County, Hydrologic Unit 02040104, on left bank 1.5 mi (2.4 km) upstream from Paradise Creek, 1.6 mi (2.6 km) southeast of Henryville, and 2.3 mi (3.7 km) north of Analomink.

DRAINAGE AREA.--65.9 mi² (170.7 km²).

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 586.50 ft (178.765 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 12, 1957, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during this year.

AVERAGE DISCHARGE.--22 years, 139 ft³/s (3.936 m³/s), 28.59 in/yr (726 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,900 ft³/s (365 m³/s) July 28, 1969, gage height, 11.82 ft (3.603 m), from rating curve extended above 1,400 ft³/s (40 m³/s) on basis of slope-area measurement of peak flow; minimum, 5.9 ft³/s (0.17 m³/s) Sept. 8, 1964; minimum gage height, 1.22 ft (0.372 m) Sept. 18, 19, 23, 1964, Aug. 9, 10, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,100 ft³/s (31.2 m³/s) and maximum(*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Jan. 2	1730	1,350	38.2	4.97	1.515	Mar. 6	0900	1,240	35.1	4.82	1.469
Jan. 21	2030	1,200	34.0	4.76	1.451	May 25	2300	2,230	63.2	5.98	1.823
Jan. 25	0100	*3,430	97.1	*7.04	2.146	Sept. 6	0930	1,400	39.6	5.03	1.533

Minimum discharge, 11 ft³/s (0.31 m³/s) Aug. 9, 10, gage height, 1.22 ft (0.372 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	17	42	106	216	293	177	279	252	46	20	23
2	13	16	39	892	197	306	206	233	215	43	19	21
3	13	16	40	834	205	298	215	214	197	38	19	25
4	15	16	68	412	182	278	194	238	185	36	18	23
5	18	15	99	295	158	583	232	198	161	40	16	21
6	49	15	87	229	150	1080	201	172	148	34	15	712
7	30	15	75	226	140	772	180	156	135	29	14	392
8	23	15	75	675	135	562	168	145	122	26	13	203
9	21	14	148	401	125	411	242	135	114	23	12	139
10	19	14	159	308	115	395	338	123	110	22	12	103
11	18	14	122	240	105	456	298	112	130	27	16	85
12	18	15	106	234	100	340	261	106	123	26	36	71
13	17	14	98	184	95	290	235	133	98	24	38	64
14	25	14	90	174	90	284	337	132	86	23	26	96
15	34	14	81	148	85	262	344	113	78	22	22	129
16	28	16	75	124	80	219	296	119	75	25	20	90
17	24	20	71	120	80	197	260	102	64	34	19	75
18	28	87	65	106	75	184	226	94	60	31	18	68
19	31	52	59	100	80	172	201	115	57	31	20	66
20	32	39	60	100	80	163	181	195	49	24	17	58
21	31	34	94	687	75	155	164	166	45	23	15	99
22	29	32	88	672	70	149	152	142	43	21	14	370
23	30	32	72	399	100	143	143	225	49	20	14	252
24	28	65	65	742	250	217	133	814	43	39	29	185
25	27	59	78	2140	658	410	124	1200	41	36	130	145
26	27	50	68	940	748	320	148	1450	36	26	65	125
27	33	46	59	676	406	256	455	834	33	24	44	107
28	28	46	63	475	307	221	636	624	31	22	38	98
29	23	43	60	362	---	230	425	428	36	21	35	118
30	19	42	55	291	---	212	329	377	48	24	30	108
31	17	---	50	254	---	191	---	311	---	22	25	---
TOTAL	761	887	2411	13546	5107	10053	7501	9685	2864	882	829	4071
MEAN	24.5	29.6	77.8	437	182	324	250	312	95.5	28.5	26.7	136
MAX	49	87	159	2140	748	1080	636	1450	252	46	130	712
MIN	13	14	39	100	70	143	124	94	31	20	12	21
CFSM	.37	.45	1.18	6.63	2.76	4.92	3.79	4.73	1.45	.43	.41	2.06
IN.	.43	.50	1.36	7.65	2.88	5.67	4.23	5.47	1.62	.50	.47	2.30

CAL YR 1978 TOTAL 59369 MEAN 163 MAX 3670 MIN 11 CFSM 2.47 IN 33.51
WTR YR 1979 TOTAL 58597 MEAN 161 MAX 2140 MIN 12 CFSM 2.44 IN 33.08

01442500 BRODHEAD CREEK AT MINISINK HILLS, PA

LOCATION.--Lat 40°59'55", long 75°08'35", Monroe County, Hydrologic Unit 02040104, on left bank at Minisink Hills, 500 ft (150 m) upstream from Marshall Creek, 1,500 ft (460 m) downstream from Coates Paper Box Co., 0.8 mi (1.3 km) upstream from mouth, and 3 mi (4.8 km) southeast of East Stroudsburg.

DRAINAGE AREA.--259 mi² (671 km²).

PERIOD OF RECORD.--November 1950 to current year.

REVISED RECORDS.--WSP 1232: 1951(P).

GAGE.--Water-stage recorder. Datum of gage is 301.84 ft (92.001 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 19, 1955, water-stage recorder, and Aug. 23 to Nov. 24, 1955, nonrecording gages at site about 1,300 ft (400 m) upstream at datum 2.19 ft (0.668 m) higher. Nov. 25, 1955 to July 24, 1956, nonrecording gage at site 40 ft (12 m) upstream at present datum.

REMARKS.--Records fair except those for winter periods, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--28 years, 569 ft³/s (16.11 m³/s), 29.85 in/yr (758 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,800 ft³/s (1,950 m³/s) Aug. 19, 1955, gage height, 29.9 ft (9.11 m), site and datum then in use, 27.0 ft (8.23 m), present site and datum, from floodmarks, from rating curve extended above 4,600 ft³/s (130 m³/s) on basis of computation of flow over dam at gage height 14.43 ft (4.398 m) and slope-area measurement of peak flow, site and datum then in use; minimum, 29 ft³/s (0.82 m³/s) Sept. 27, 1964, gage height, 1.12 ft (0.341 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,300 ft³/s (122 m³/s) and maximum(*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Jan. 2	unknown	5,000	142	unknown		Mar. 6	unknown	4,700	133	unknown	
Jan. 21	unknown	4,600	130	unknown		May 25	2400	5,710	162	6.10	1.859
Jan. 25	unknown	*9,600	272	unknown		Sept. 6	1230	5,920	168	6.21	1.893
Feb. 26	unknown	4,660	132	5.52	1.682						

Minimum daily discharge, 76 ft³/s (2.15 m³/s) Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	112	218	767	1000	1180	660	963	1070	237	114	107
2	82	112	204	3340	900	1210	720	832	883	222	124	103
3	80	103	200	2860	850	1190	775	751	799	204	114	116
4	90	100	301	2430	850	1170	759	892	751	186	110	112
5	76	96	442	1940	800	1920	900	775	646	193	103	105
6	245	103	351	1280	750	3090	775	675	597	186	107	2790
7	179	98	321	1310	700	2790	683	618	551	176	100	1370
8	135	94	345	2880	660	1880	683	571	512	167	96	683
9	119	94	532	1800	620	1390	918	525	467	154	92	480
10	110	92	486	1490	580	1290	1330	545	448	137	88	373
11	105	90	454	1160	540	1530	1100	571	525	135	103	306
12	100	92	512	892	500	1170	981	506	512	135	197	262
13	100	92	480	866	480	1030	936	604	395	132	234	241
14	140	96	460	866	460	963	1310	604	356	129	154	275
15	183	96	400	775	440	858	1280	538	316	145	135	473
16	148	94	384	646	420	775	1050	611	311	200	116	296
17	132	116	367	571	400	720	945	564	283	340	107	253
18	121	406	345	551	400	690	815	460	270	226	103	234
19	116	275	301	406	450	646	735	564	262	226	110	214
20	135	237	301	412	400	618	660	815	249	170	107	197
21	126	190	625	668	380	590	618	690	234	148	98	335
22	119	167	493	2520	350	564	538	604	230	140	96	1670
23	121	164	406	1840	525	538	545	972	230	132	92	927
24	119	283	373	3000	1590	660	506	3250	226	135	94	668
25	119	266	460	8000	2370	1290	473	4170	211	170	316	545
26	114	226	412	4000	3710	1040	512	4410	200	137	218	473
27	129	214	367	3000	2170	875	1000	2940	193	132	164	400
28	137	207	306	2000	1410	759	2100	2310	200	121	140	367
29	119	211	306	1500	---	815	1430	1720	222	119	129	448
30	116	211	292	1300	---	751	1150	1590	249	135	132	384
31	110	---	250	1100	---	698	---	1330	---	121	116	---
TOTAL	3807	4737	11694	56170	24705	34690	26887	36970	12398	5190	4009	15207
MEAN	123	158	377	1812	882	1119	896	1193	413	167	129	507
MAX	245	406	625	8000	3710	3090	2100	4410	1070	340	316	2790
MIN	76	90	200	406	350	538	473	460	193	119	88	103
CFSM	.48	.61	1.46	7.00	3.41	4.32	3.46	4.61	1.60	.65	.50	1.96
IN.	.55	.68	1.68	8.07	3.55	4.98	3.86	5.31	1.78	.75	.58	2.18

CAL YR 1978 TOTAL 236027 MEAN 647 MAX 9480 MIN 76 CFSM 2.50 IN 33.90
WTR YR 1979 TOTAL 236464 MEAN 648 MAX 8000 MIN 76 CFSM 2.50 IN 33.96

DELAWARE RIVER BASIN

01446500 DELAWARE RIVER AT BELVIDERE, NJ

LOCATION.--Lat 40°49'36", long 75°05'02", Warren County, Hydrologic Unit 02040105, on left bank at Belvidere, 800 ft (240 m) downstream from Pequest River, and at channel mile 197.7 (319.1 km).

DRAINAGE AREA.--4,535 mi² (11,746 km²).

PERIOD OF RECORD.--October 1922 to current year.

REVISED RECORDS.--WSP 781: 1933(M). WSP 951: 1940-41, Drainage area. WSP 1432: 1923, 1924(M).

GAGE.--Water-stage recorder. Datum of gage is 226.43 ft (69.016 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 1, 1929, nonrecording gage at site 200 ft (61 m) upstream at same datum.

REMARKS.--Water-discharge records excellent. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--57 years, 7,977 ft³/s (225.9 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 273,000 ft³/s (7,730 m³/s) Aug. 19, 1955 (gage height, 30.21 ft or 9.208 m, from high-water mark in gage house), from rating curve extended above 170,000 ft³/s (4,810 m³/s) on basis of flood-routing study; minimum, 609 ft³/s (17.2 m³/s) Sept. 28, 29, 1943, gage height, 2.11 ft (0.643 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 10, 1903, reached a stage of 28.6 ft (8.72 m), from floodmark, discharge, 220,000 ft³/s (6,230 m³/s) from rating curve extended above 170,000 ft³/s (4,810 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 76,800 ft³/s (2,175 m³/s) Mar. 7, gage height, 15.64 ft (4.767 m); minimum, 1,810 ft³/s (51.3 m³/s) Oct. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2050	2660	3630	4370	13400	17600	13600	15200	19700	3170	2080	2220
2	1850	2660	3000	13300	11100	17800	13000	13600	16600	2880	2320	2310
3	2050	2700	2660	55800	9800	18000	13700	12500	13900	3190	2580	2510
4	2080	2660	2740	36100	8770	15400	13700	12200	13600	3130	2740	2270
5	2220	2410	3170	21300	8310	17000	13200	12600	13000	2800	2360	2400
6	2390	2290	3680	15800	6830	59100	13200	11200	11200	2530	2100	8430
7	2500	2400	4310	13500	6700	68300	12300	10000	10300	2490	2130	14200
8	2250	2310	4140	19500	6850	46000	10600	9760	9200	2380	2110	12600
9	1870	2250	5950	26800	6080	32900	10600	9280	8580	2340	1950	7650
10	1980	2410	10400	20400	5570	25800	15100	8690	6600	2240	2080	4980
11	2110	2450	11700	15400	5640	25000	17200	8500	6380	2340	2380	4340
12	2340	2130	9640	11800	5250	27200	16200	7570	9970	2360	3020	4200
13	2560	1980	7780	10800	5340	22400	15400	6380	9200	2620	3680	3730
14	2410	2170	7100	10400	5250	19100	15300	6270	7820	2700	3600	3250
15	2680	2180	6830	10500	5280	18000	17500	6450	6450	2780	2660	3790
16	3170	2050	5570	10000	5740	16400	18200	5740	5570	2530	2560	3210
17	3320	2130	4730	8740	5120	14500	17600	4920	5140	3130	2150	3340
18	2700	2560	4520	8190	4430	13600	16400	4370	4370	3230	2060	3020
19	2270	2470	4000	6700	4190	12500	15000	4580	4140	4030	2170	2720
20	2170	2320	3300	5940	4710	11900	13700	5500	3730	3370	2360	2490
21	2170	2940	3870	10900	4990	11400	12600	5140	3450	2880	2320	2700
22	2290	2680	5240	17700	4930	11000	10500	5430	3370	2430	2410	6900
23	2380	2450	5910	24100	4840	10900	9400	5400	3150	2150	2240	6010
24	2240	2760	5060	20800	8550	11100	9320	13200	2900	2470	2100	5230
25	2320	2720	4770	48600	14800	15300	8580	29300	2820	2740	2560	4960
26	2150	2640	4130	57000	21700	24400	8120	42900	3020	2660	3190	4340
27	2270	3040	4370	35000	23100	22300	9720	45600	2900	2490	2530	4010
28	2400	3210	4280	25700	20000	18700	16300	35400	2540	2510	2340	3720
29	4110	2940	3870	20700	---	16700	20600	29700	2980	2470	2380	3870
30	3250	3190	3690	17300	---	15700	16200	27100	3500	2400	2240	3420
31	2760	---	3790	15100	---	15300	---	24200	---	2200	2200	---
TOTAL	75310	75760	157830	618240	237270	671300	413040	438680	216080	83640	75600	130900
MEAN	2429	2525	5091	19940	8474	21650	13770	14150	7203	2698	2439	4630
MAX	4110	3210	11700	57000	23100	68300	20600	45600	19700	4030	3600	14200
MIN	1850	1980	2660	4370	4190	10900	8120	4370	2540	2150	1950	2220
CFSM	.54	.56	1.12	4.40	1.87	4.77	3.04	3.12	1.59	.60	.54	1.02
IN.	.62	.62	1.29	5.07	1.95	5.51	3.39	3.60	1.77	.69	.62	1.14

CAL YR 1978 TOTAL 2959520 MEAN 8108 MAX 73900 MIN 1590 CFSM 1.79 IN 24.28
WTR YR 1979 TOTAL 3201650 MEAN 8772 MAX 68300 MIN 1850 CFSM 1.93 IN 26.26

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA

LOCATION.--Lat 41°07'49", long 75°37'33", Monroe County, Hydrologic Unit 02040106, on left bank 75 ft (23 m) upstream from bridge on State Highway 115, at Stoddartsville, 1.9 mi (3.1 km) upstream from Tobyhanna Creek, and 4 mi (6 km) southwest of Thornhurst.

DRAINAGE AREA.--91.7 mi² (237.5 km²).

PERIOD OF RECORD.--October 1943 to current year.

REVISED RECORDS.--WSP 1382: 1947, 1951.

GAGE.--Water-stage recorder. Datum of gage is 1,463.81 ft (446.169 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1946, nonrecording gage at site 350 ft (110 m) downstream at datum 2.14 ft (0.652 m) lower.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--36 years, 189 ft³/s (5.352 m³/s), 27.94 in/year (710 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,900 ft³/s (903 m³/s) Aug. 19, 1955, gage height, 16.37 ft (4.990 m), from floodmarks, from rating curve extended above 1,700 ft³/s (48 m³/s) on basis of slope-area measurement of peak flow; minimum observed, 7.0 ft³/s (0.20 m³/s) Sept. 26, 27, 1964, gage height, 0.22 ft (0.067 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 22, 1942 reached a stage of 12.03 ft (3.667 m), from floodmark, present site and datum, discharge, 15,700 ft³/s (445 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,300 ft³/s (36.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 2	1630	1,640	46.4	4.15	1.265	Mar. 6	1100	1,960	55.5	4.61	1.405
Jan. 25	1030	*2,470	70.0	*5.27	1.606						

Minimum discharge, 28 ft³/s (0.79 m³/s) Oct. 4, gage height, 0.41 ft (0.125 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	63	68	227	303	386	254	220	247	146	49	34
2	30	62	63	1280	258	377	254	196	214	117	44	33
3	29	59	62	1010	240	369	254	196	232	115	41	62
4	33	52	110	740	223	382	234	307	222	101	38	55
5	41	48	144	528	190	1000	261	254	190	107	36	47
6	48	47	111	335	182	1790	232	217	187	86	41	550
7	45	45	92	447	170	1220	205	196	168	74	42	609
8	41	48	92	1020	160	820	192	185	160	66	33	291
9	39	45	193	800	150	618	262	174	150	60	30	177
10	36	44	214	618	140	559	376	166	139	56	35	130
11	35	44	163	483	130	650	385	158	149	55	50	103
12	34	43	137	442	130	519	363	149	144	52	150	88
13	34	43	117	339	120	429	316	153	126	50	100	76
14	77	42	107	276	120	434	399	156	115	47	75	90
15	92	41	99	251	115	416	426	146	107	46	65	107
16	68	43	90	220	110	339	369	177	101	49	58	128
17	59	45	88	196	105	303	335	153	95	80	52	99
18	52	95	83	179	100	280	286	141	90	90	49	84
19	49	88	77	156	100	258	246	158	83	80	56	83
20	52	77	97	168	105	240	222	190	66	69	50	77
21	50	68	141	403	100	220	206	166	59	60	45	93
22	47	63	117	655	100	208	191	153	57	50	42	690
23	45	63	109	487	120	199	181	231	71	47	38	550
24	44	84	111	510	348	284	169	500	65	44	39	331
25	43	79	117	2080	586	622	161	961	66	43	56	227
26	43	71	130	1350	735	568	163	945	62	41	53	182
27	92	69	120	868	555	412	250	650	57	39	45	153
28	90	79	110	640	420	331	395	492	62	50	45	135
29	76	71	110	519	---	327	319	438	161	44	42	158
30	68	69	103	429	---	311	254	352	174	43	39	153
31	63	---	92	360	---	280	---	299	---	59	36	---
TOTAL	1585	1790	3467	18020	6115	15147	8160	8875	3819	2066	1574	5675
MEAN	51.1	59.7	112	581	218	489	272	286	127	66.6	50.8	189
MAX	92	95	214	2080	735	1790	426	961	247	146	150	690
MIN	29	41	62	156	100	199	161	141	57	39	30	33
CFSM	.56	.65	1.22	6.34	2.38	5.33	2.97	3.12	1.39	.73	.55	2.06
IN.	.64	.73	1.41	7.31	2.48	6.14	3.31	3.60	1.55	.84	.64	2.30

CAL YR 1978 TOTAL 67120 MEAN 184 MAX 2030 MIN 21 CFSM 2.01 IN 27.23
WTR YR 1979 TOTAL 76293 MEAN 209 MAX 2080 MIN 29 CFSM 2.28 IN 30.95

01447680 TUNKHANNOCK CREEK NEAR LONG POND, PA

LOCATION.--Lat 41°03'55", long 75°31'14", Monroe County, Hydrologic Unit 02040106, on left bank 0.6 mi (1.0 km) downstream from unnamed tributary, 0.9 mi (1.4 km) downstream from bridge on Legislative Route 45040, 3 mi (5 km) west of Long Pond, and 5 mi (8 km) upstream from mouth.

DRAINAGE AREA.--18.0 mi² (46.6 km²). At site used prior to July 7, 1966, 16.8 mi² (43.5 km²).

PERIOD OF RECORD.--March 1965 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,804.83 ft (550.112 m) National Geodetic Vertical Datum of 1929. Prior to July 7, 1966, nonrecording gage at site 0.8 mi (1.3 km) upstream at different datum.

REMARKS.--Records good except those for winter periods and periods of no gage-height record, July 26 to Aug. 10 and Aug. 12 to Sept. 5, which are fair. Diversion above station, since October 1969, to Wild Creek Basin. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--14 years, 47.6 ft³/s (1.348 m³/s), 35.88 in/yr (911 mm/yr), adjusted for diversion since October 1969.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 480 ft³/s (13.6 m³/s) July 30, 1969, gage height, 4.34 ft (1.323 m); minimum, 3.0 ft³/s (0.085 m³/s) Mar. 11, 1969, gage height, 1.84 ft (0.561 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 170 ft³/s (4.81 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	1100	*272	7.70	3.39	1.033	Feb. 18	--	--	--	ice jam	
Jan. 9	0830	235	6.66	3.27	0.997	Feb. 19	--	--	--	ice jam	
Jan. 12	--	--	--	ice jam		Mar. 6	2100	269	7.62	3.38	1.030
Jan. 15	--	--	--	ice jam		Mar. 16	0630	201	5.69	3.16	0.963
Jan. 25	0430	257	7.28	3.34	1.018	May 26	0730	191	5.41	3.13	0.954
Feb. 3	--	--	--	ice jam		Sept. 8	0130	211	5.98	3.19	0.972
Feb. 6	--	ice jam		*3.45	1.052						

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	13	28	29	70	73	68	57	74	45	17	15
2	7.3	12	22	103	60	67	74	52	66	38	15	15
3	7.0	12	22	200	55	64	80	57	61	31	16	15
4	8.3	11	31	180	50	60	78	65	60	28	15	16
5	10	11	48	129	45	117	80	63	55	27	14	15
6	22	10	44	97	42	248	70	54	52	25	14	84
7	30	9.4	33	79	39	254	58	47	50	23	13	164
8	30	9.4	30	120	37	191	56	44	47	20	12	199
9	24	10	46	155	35	136	58	41	45	19	11	146
10	19	10	63	119	33	114	72	40	44	17	10	95
11	15	10	91	100	31	116	84	41	46	17	16	62
12	14	9.8	40	80	30	111	77	39	51	17	30	46
13	12	12	33	65	29	103	69	49	45	16	28	35
14	20	12	30	61	28	91	76	60	39	16	23	39
15	30	10	26	57	27	84	88	51	35	15	20	48
16	35	11	27	58	26	106	79	51	33	20	18	53
17	27	14	26	48	23	70	66	47	30	30	17	50
18	22	40	26	45	20	66	56	41	28	35	16	42
19	19	54	25	42	25	65	54	53	28	31	17	33
20	17	43	24	40	20	61	51	83	27	25	19	30
21	16	29	28	60	21	63	49	74	26	21	17	35
22	15	23	39	118	21	61	46	56	25	18	15	71
23	13	23	35	118	23	63	43	62	27	16	14	88
24	12	33	31	131	38	76	44	129	27	15	16	90
25	14	37	26	237	87	125	42	176	27	15	27	76
26	13	31	36	218	116	130	46	187	25	15	25	59
27	15	27	27	198	103	114	79	160	23	15	20	48
28	18	23	25	160	80	84	122	130	22	14	17	42
29	17	24	25	124	---	74	106	104	25	14	15	40
30	15	24	24	100	---	74	78	87	41	15	16	41
31	14	---	21	68	---	70	---	82	---	20	16	---
TOTAL	538.6	597.6	1032	3339	1214	3131	2049	2282	1184	673	539	1792
MEAN	17.4	19.9	33.3	108	43.4	101	68.3	73.6	39.5	21.7	17.4	59.7
MAX	35	54	91	237	116	254	122	187	74	45	30	199
MIN	7.0	9.4	21	29	20	60	42	39	22	14	10	15
/	.13	0	.33	.38	.49	.49	.31	.01	.55	.16	.05	.46
MEAN≠	17.5	19.9	33.6	108	43.9	101	68.6	73.6	40.0	21.9	17.4	60.2
CFSM≠	.97	1.11	1.87	6.00	2.44	5.64	3.81	4.09	2.22	1.22	.97	3.34
IN≠	1.12	1.24	2.15	6.92	2.54	6.50	4.25	4.72	2.48	1.40	1.12	3.73

CAL YR 1978	TOTAL	17958.5	MEAN	49.2	MAX	400	MIN	6.2	MEAN≠	49.6	CFSM≠	2.75	IN≠	37.40
WTR YR 1979	TOTAL	18371.2	MEAN	50.3	MAX	254	MIN	7.0	MEAN≠	50.6	CFSM≠	2.81	IN≠	38.18

/ Diversion above station to Wild Creek basin equivalent in cubic feet per second, furnished by City of Bethlehem.

≠ Adjusted for diversion.

01447720 TOBYHANNA CREEK NEAR BLAKESLEE, PA

LOCATION.--Lat 41°05'05", long 75°36'21", Carbon County, Hydrologic Unit 02040106, on left bank 50 ft (15 m) downstream from bridge on State Highway 940, 500 ft (150 m) downstream from Shingle Mill Run, and 1.5 mi (2.4 km) southwest of Blakeslee.

DRAINAGE AREA.--118 mi^2 (306 km^2).

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,511.23 ft (460.623 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 16, 1962, nonrecording gage at site 50 ft (15 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Occasional regulation by Pocono Lake about 5.0 mi (8.0 km) upstream and minor diversion from Tunkhannock Creek basin into Wild Creek basin.

AVERAGE DISCHARGE.--18 years, 264 ft^3/s (7.476 m^3/s), 30.36 in/yr (771 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,760 ft^3/s (191 m^3/s) July 29, 1969, gage height, 10.69 ft (3.258 m), from rating curve extended above 4,200 ft^3/s (120 m^3/s) on basis of slope-area measurement at gage height 19.41 ft (5.916 m); minimum, 22 ft^3/s (0.62 m^3/s) Sept. 24, 25, 1964, gage height, 1.51 ft (0.460 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 19, 1955, reached a stage of 19.41 ft (5.916 m), from floodmark, discharge, 35,300 ft^3/s (1,000 m^3/s), by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,600 ft^3/s (45.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 2	1900	2,140	60.6	6.60	2.012	Mar. 6	1000	2,430	68.8	6.96	2.121
Jan. 25	0800	*3,640	103	*8.21	2.502	Sept. 6	2200	2,870	81.3	7.46	2.274

Minimum discharge, 32 ft^3/s (0.91 m^3/s) Nov. 15, gage height, 1.68 ft (0.512 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	107	51	270	396	501	384	371	384	272	75	62
2	43	106	50	1590	339	481	402	306	325	202	73	59
3	42	105	50	1540	309	468	423	289	299	175	73	87
4	51	104	135	923	295	448	407	403	287	152	68	86
5	64	100	261	619	264	1150	420	371	253	158	61	83
6	137	70	222	859	298	2250	379	306	241	140	60	1640
7	176	59	157	427	280	1690	328	266	232	119	65	2000
8	143	54	146	1060	230	1160	299	245	212	104	57	1020
9	112	47	292	931	230	850	355	226	200	94	51	565
10	90	46	327	657	220	742	480	213	235	87	50	334
11	77	46	220	472	210	889	534	206	267	88	75	231
12	68	46	175	388	210	736	485	193	294	82	169	174
13	65	43	149	[illegible]	200	598	423	219	237	79	226	145
14	110	35	135	361	200	535	480	272	193	77	173	217
15	183	33	124	303	190	521	558	261	166	73	134	381
16	167	34	116	272	190	435	479	277	152	97	105	308
17	172	38	116	260	180	387	408	250	141	391	87	235
18	222	110	113	231	170	357	348	221	132	297	80	187
19	274	99	132	229	170	338	305	269	125	198	85	165
20	273	78	142	226	206	318	273	427	116	145	79	143
21	266	59	170	520	180	310	253	403	108	116	71	230
22	261	50	185	919	170	301	236	317	105	97	65	1000
23	254	52	154	752	196	296	225	371	115	88	59	799
24	248	77	140	990	421	430	215	965	118	85	67	511
25	243	75	177	3220	881	1180	206	1280	113	88	119	357
26	240	62	160	1900	1000	1050	221	1250	104	85	132	279
27	225	58	149	1230	817	742	462	920	96	84	118	232
28	177	53	145	909	576	526	871	729	100	80	107	207
29	131	52	160	690	---	464	696	564	162	80	92	238
30	110	53	139	562	---	448	488	482	284	87	81	246
31	109	---	123	452	---	407	---	452	---	82	71	---
TOTAL	4776	1951	4839	23680	8892	21008	12043	13324	5796	3998	2828	12221
MEAN	154	65.0	156	764	318	678	401	430	193	129	91.2	407
MAX	274	110	327	3220	1000	2250	871	1280	384	391	226	2000
MIN	42	33	50	226	170	296	206	193	96	73	50	59
CFSM	1.31	.55	1.32	6.48	2.70	5.75	3.40	3.64	1.64	1.09	.77	3.45
IN.	1.51	.62	1.53	7.47	2.80	6.62	3.80	4.20	1.83	1.26	.89	3.85

CAL YR 1978 TOTAL 106270 MEAN 291 MAX 3550 MIN 33 CFSM 2.47 IN 33.50
WTR YR 1979 TOTAL 115396 MEAN 316 MAX 3220 MIN 33 CFSM 2.68 IN 36.37

01447800 LEHIGH RIVER BELOW FRANCIS E. WALTER LAKE NEAR WHITE HAVEN, PA

LOCATION.--Lat 41°06'17", long 75°43'57", Luzerne County, Hydrologic Unit 02040106, on right bank 0.7 mi (1.1 km) downstream from Francis E. Walter Lake, 2.0 mi (3.2 km) upstream from Fawn Run, and 4 mi (6.4 km) northeast of White Haven.

DRAINAGE AREA.--290 mi^2 (751 km^2).

PERIOD OF RECORD.--October 1957 to current year. Prior to October 1962 published as "below Bear Creek Reservoir", October 1962 to September 1971 published as "below Francis E. Walter Reservoir".

GAGE.--Water-stage recorder. Datum of gage is 1,212.95 ft (369.707 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good except for winter periods, which are fair. Flow regulated by Francis E. Walter Lake (station 01447780) 0.7 mi (1.1 km) upstream since February 1961. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--22 years, 622 ft^3/s (17.62 m^3/s), 29.12 in/yr (740 mm/yr), adjusted for storage since February 1961.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,800 ft ^{3}/s (391 m^3/s) Dec. 21, 1957, gage height, 9.85 ft (3.002 m), from rating curve extended above 6,100 ft^3/s (170 m^3/s); minimum, 1.3 ft^3/s (0.037 m^3/s) Nov. 14, 1961, result of shutoff at lake; minimum gage height, 1.86 ft (0.567 m) Sept. 16, 1964; minimum daily discharge, 22 ft^3/s (0.62 m^3/s) July 20-23, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 1955 reached a discharge of 54,200 ft^3/s (1,530 m^3/s) based on slope-area measurement at site 4.9 mi (7.9 km) downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,490 ft^3/s (155 m^3/s) Jan. 26, gage height, 7.23 ft (2.204 m) minimum, 63 ft^3/s (1.78 m^3/s) Nov. 13, 14, 15, 16, gage height, 2.61 ft (0.796 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	127	310	188	490	1180	3760	914	819	1150	649	169	124
2	127	249	188	1050	902	1520	869	723	900	480	169	125
3	130	209	188	1740	742	1300	869	612	684	275	146	190
4	133	212	436	3790	715	1300	754	917	691	205	129	184
5	133	212	688	4230	645	1520	817	942	693	251	130	189
6	136	212	632	2490	610	1890	811	716	687	312	130	287
7	246	212	535	1340	606	3650	744	605	676	572	131	1900
8	319	212	446	1650	582	4540	709	423	545	254	132	3010
9	310	209	718	2020	624	3640	703	555	446	188	133	2330
10	266	206	1030	2020	600	2220	1040	604	451	130	133	710
11	178	206	731	1930	550	2200	1290	511	490	130	178	364
12	136	172	555	1520	500	2590	1290	449	571	133	364	336
13	104	94	529	958	450	2940	1160	449	498	133	421	223
14	190	66	421	953	430	2020	1060	513	391	133	307	297
15	550	66	362	941	500	1470	1240	565	356	152	367	567
16	598	117	367	860	575	1090	1310	563	354	151	279	679
17	482	148	362	579	450	985	1130	497	352	419	157	376
18	390	150	345	549	400	958	983	452	348	559	204	364
19	311	155	309	479	350	790	793	451	237	304	254	332
20	400	194	232	459	370	742	650	532	166	221	137	214
21	633	258	427	492	421	748	623	773	236	569	131	376
22	463	255	497	1080	407	726	619	728	195	258	133	773
23	460	251	438	2010	395	702	598	665	127	146	134	1250
24	454	250	387	1590	406	708	553	1740	150	127	136	1860
25	375	250	404	1200	279	1540	490	2440	185	129	140	1990
26	303	250	409	4510	303	2440	491	2660	186	183	255	1030
27	388	248	393	5270	1160	1670	645	2680	188	216	305	660
28	443	246	286	4910	3830	1150	1750	2600	188	177	248	559
29	443	207	269	3070	---	1000	1750	2460	358	147	207	634
30	383	186	277	1840	---	1000	976	2040	593	210	121	449
31	310	---	303	1580	---	968	---	1390	---	169	123	---
TOTAL	9921	6012	13356	57600	18982	53777	27631	32094	13092	7982	6003	22382
MEAN	320	200	431	1858	678	1735	921	1035	436	257	194	746
MAX	633	310	1030	5270	3830	4540	1750	2680	1150	649	421	3010
MIN	104	66	188	459	279	702	490	423	127	127	121	124
MEAN≠	324	202	428	1870	768	1642	922	1040	440	248	195	754
CFSM≠	1.12	.70	1.47	6.45	2.65	5.66	3.18	3.59	1.52	.85	.67	2.60
IN≠	1.29	.78	1.70	7.43	2.76	6.53	3.55	4.14	1.69	.99	.77	2.90

CAL YR 1978 TOTAL 240088 MEAN 658 MAX 6180 MIN 61 MEAN≠ 658 CFSM≠ 2.27 IN≠ 30.79
WTR YR 1979 TOTAL 268832 MEAN 737 MAX 5270 MIN 66 MEAN≠ 737 CFSM≠ 2.54 IN≠ 34.53

≠ Adjusted for change in contents in Francis E. Walter Lake.

01448500 DILLDOWN CREEK NEAR LONG POND, PA

LOCATION.--Lat 41°02'08", long 75°32'37", Monroe County, Hydrologic Unit 02040106, on left bank 60 ft (18 m) upstream from bridge on Shucks Mill Road, 2.8 mi (4.5 km) upstream from Mud Run, 4 mi (6 km) northeast of Albrightsville, and 4.4 mi (7.1 km) west of Long Pond.

DRAINAGE AREA.--2.39 mi² (6.19 km²).

PERIOD OF RECORD.--October 1948 to current year.

REVISED RECORDS.--WSP 1392: 1949(M), 1950-53.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,665.07 ft (507.513 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--31 years, 4.96 ft³/s (0.140 m³/s), 28.19 in/yr (716 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 630 ft³/s (17.8 m³/s) June 14, 1969, gage height, 3.995 ft (1.218 m), from rating curve extended above 300 ft³/s (8.50 m³/s) on basis of culvert and flow-over-dam computations of peak flow; minimum, 0.10 ft³/s (0.003 m³/s) Dec. 10, 1964, gage height, 0.55 ft (0.168 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50 ft³/s (1.42 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 2	1545	63	1.78	2.28	0.695	Mar. 6	0600	62	1.76	2.27	0.692
Jan. 25	0700	*93	2.63	*2.46	0.750	Sept. 6	0900	77	2.18	2.37	0.722

Minimum discharge, 0.62 ft³/s (0.018 m³/s) Oct. 1, 2, gage height, 0.90 ft (0.271 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.70	1.3	1.8	8.2	7.7	8.2	5.6	5.8	7.7	3.0	1.9	.78
2	.66	1.2	1.7	44	6.7	9.1	8.2	5.3	7.0	2.4	2.1	1.2
3	.66	1.2	1.9	20	6.3	9.1	7.7	6.1	6.5	2.1	1.2	1.4
4	.80	1.1	3.5	11	6.1	10	7.2	8.7	6.1	2.2	1.1	1.5
5	1.5	1.1	2.5	8.8	5.4	37	8.8	5.9	5.2	2.1	.97	1.9
6	3.0	1.1	2.3	8.0	5.0	45	6.7	5.1	4.8	1.6	.92	29
7	1.5	1.1	2.2	11	5.0	24	5.7	4.8	4.5	1.4	.97	8.0
8	1.2	1.1	3.2	31	4.7	18	5.4	4.6	4.2	1.4	.82	4.7
9	1.1	1.1	6.7	14	4.3	14	8.2	4.4	4.0	1.4	.82	4.0
10	1.0	1.0	3.6	10	4.0	15	11	4.5	3.9	1.3	.87	3.1
11	1.0	1.0	3.0	8.5	3.6	17	8.8	4.2	5.6	1.4	2.0	2.8
12	1.0	1.0	2.9	7.4	3.5	12	7.1	3.9	4.5	1.3	3.1	2.6
13	1.0	1.0	3.0	7.2	3.6	11	6.5	5.8	3.5	1.2	1.5	2.5
14	2.0	1.0	2.9	7.7	3.6	12	12	5.7	3.1	1.3	1.1	8.2
15	1.5	1.0	2.8	6.5	3.5	8.5	9.4	4.5	2.8	1.2	1.0	6.3
16	1.2	1.1	2.7	5.4	3.4	7.4	7.5	6.1	2.7	1.7	.87	3.4
17	1.4	1.5	2.8	5.2	2.9	7.0	7.0	4.0	2.5	2.1	.87	3.1
18	1.3	4.7	2.7	5.0	2.8	7.0	6.5	4.1	2.5	1.9	1.2	2.9
19	1.2	2.0	2.5	4.5	2.9	6.5	6.0	6.4	2.3	1.3	1.1	2.9
20	1.3	1.7	2.5	4.3	2.9	5.9	5.8	8.3	2.2	1.2	.92	2.8
21	1.2	1.6	4.7	17	2.9	5.6	5.4	5.2	2.1	1.2	.97	8.5
22	1.2	1.5	3.0	23	2.8	5.4	5.0	4.5	2.2	1.2	.82	17
23	1.2	2.0	2.6	8.8	3.0	5.6	4.7	9.0	2.4	1.2	.82	7.0
24	1.1	2.9	2.5	10	12	11	4.5	23	2.2	1.4	1.5	5.4
25	1.1	2.0	2.7	62	15	16	4.5	20	2.0	1.7	2.2	4.9
26	1.2	1.8	2.4	21	14	8.5	4.8	18	1.8	1.6	1.1	4.6
27	2.1	1.7	2.4	14	8.2	7.0	16	13	1.7	1.7	.97	4.2
28	1.3	1.9	2.2	12	7.7	6.1	12	12	2.2	1.6	.92	4.2
29	1.3	1.8	2.2	11	---	8.0	7.3	10	3.6	1.7	.92	5.1
30	1.2	1.9	2.2	9.1	---	6.7	6.3	8.7	8.8	1.5	.87	4.5
31	1.2	---	2.2	8.5	---	6.3	---	9.4	---	1.1	.82	---
TOTAL	39.12	46.4	86.3	424.1	153.5	369.9	221.6	241.0	114.6	49.4	37.24	158.48
MEAN	1.26	1.55	2.78	13.7	5.48	11.9	7.39	7.77	3.82	1.59	1.20	5.28
MAX	3.0	4.7	6.7	62	15	45	16	23	8.8	3.0	3.1	29
MIN	.66	1.0	1.7	4.3	2.8	5.4	4.5	3.9	1.7	1.1	.82	.78
CFSM	.53	.65	1.16	5.73	2.29	4.98	3.09	3.25	1.60	.67	.50	2.21
IN.	.61	.72	1.34	6.60	2.39	5.76	3.45	3.75	1.78	.77	.58	2.47

CAL YR 1978 TOTAL 1949.64 MEAN 5.34 MAX 103 MIN .62 CFSM 2.23 IN 30.33
WTR YR 1979 TOTAL 1941.64 MEAN 5.32 MAX 62 MIN .66 CFSM 2.23 IN 30.21

LEHIGH RIVER BASIN

01449360 POHOPOCO CREEK AT KRESGEVILLE, PA

LOCATION.--Lat 40°53'51", long 75°30'10", Monroe County, Hydrologic Unit 02040106, on right bank 20 ft (6 m) downstream from bridge on U.S. Highway 209 at Kresgeville, 0.2 mi (0.3 km) downstream from Middle Creek, and 13 mi (21 km) northeast of Lehighton.

DRAINAGE AREA.--49.9 mi² (129.2 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 659.72 ft (201.083 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--13 years, 112 ft³/s (3.172 m³/s), 30.43 in/yr (773 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,080 ft³/s (58.9 m³/s) July 28, 1969, gage height, 9.21 ft (2.807 m), from rating curve extended above 800 ft³/s (23 m³/s); minimum, 16 ft³/s (0.45 m³/s) Oct. 9, 10, 1970; minimum gage height, 2.82 ft (0.860 m) Feb. 11, 1979, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 3	0045	720	20.4	6.35	1.935	Feb. 24	2245	675	19.1	6.20	1.890
Jan. 8	1015	583	16.5	5.89	1.795	Feb. 25	2400	660	18.7	6.15	1.875
Jan. 21	1815	840	23.8	6.70	2.042	May 25	1930	514	14.6	5.64	1.719
Jan. 25	0245	*1,820	51.5	*8.79	2.679						

Minimum discharge, 18 ft³/s (0.51 m³/s) Feb. 11, gage height, 2.82 ft (0.860 m), result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	26	41	143	170	229	129	160	174	59	35	25
2	26	25	39	515	153	208	143	144	157	55	35	25
3	25	25	40	590	141	188	143	141	151	51	34	26
4	28	25	66	361	133	176	142	152	152	53	31	25
5	30	25	70	284	122	266	170	130	132	52	30	25
6	68	25	62	237	116	343	153	119	123	47	29	272
7	41	25	59	240	113	309	148	113	116	46	28	213
8	32	25	85	531	107	263	146	108	109	43	27	112
9	30	25	188	396	95	223	191	103	105	42	26	86
10	29	25	188	296	90	212	215	116	100	43	26	75
11	29	25	150	238	82	235	183	130	121	43	35	66
12	29	24	127	199	85	194	179	105	102	41	60	60
13	30	24	113	184	75	177	170	113	90	39	45	57
14	52	24	101	184	78	172	227	109	84	65	34	71
15	42	24	91	160	74	158	203	99	80	55	32	80
16	34	24	85	136	70	142	185	104	77	65	30	56
17	33	32	82	126	65	136	176	90	74	95	28	51
18	31	80	76	120	60	129	164	90	72	73	29	49
19	31	43	70	103	62	123	152	102	70	64	31	48
20	32	36	67	104	67	115	142	117	65	51	29	45
21	29	34	106	485	60	110	134	98	64	48	28	101
22	29	32	81	541	62	105	127	94	64	45	27	243
23	28	34	71	287	68	102	119	153	65	42	26	165
24	28	47	68	546	353	124	113	350	60	42	34	130
25	28	38	95	1190	569	209	109	450	58	41	46	112
26	28	35	80	485	700	195	110	416	55	38	31	100
27	33	35	73	369	325	176	195	336	54	37	28	90
28	30	37	67	308	255	161	233	297	56	35	27	85
29	29	37	67	253	---	162	188	246	67	40	27	94
30	28	39	62	215	---	147	172	218	72	41	27	84
31	26	---	64	190	---	137	---	206	---	36	25	---
TOTAL	994	955	2634	10016	4350	5626	4861	5209	2769	1527	980	2671
MEAN	32.1	31.8	85.0	323	155	181	162	168	92.3	49.3	31.6	89.0
MAX	68	80	188	1190	700	343	233	450	174	95	60	272
MIN	25	24	39	103	60	102	109	90	54	35	25	25
CFSM	.64	.64	1.70	6.47	3.11	3.63	3.25	3.37	1.85	.99	.63	1.78
IN.	.74	.71	1.96	7.47	3.24	4.19	3.62	3.88	2.06	1.14	.73	1.99

CAL YR 1978 TOTAL 41348 MEAN 113 MAX 1070 MIN 24 CFSM 2.27 IN 30.82
WTR YR 1979 TOTAL 42592 MEAN 117 MAX 1190 MIN 24 CFSM 2.35 IN 31.75

LEHIGH RIVER BASIN

01449360 POHOPOCO CREEK AT KRESGEVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1968 to September 1970, May 1971 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 31.5°C July 25, 1970; minimum, freezing point on several days during winter months

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 24.0°C Aug. 4, 5; minimum, 0.5 Jan. 18-21, Feb. 2, 3, 5-22.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.0	12.0	13.0	10.0	7.0	8.5	5.5	4.0	4.5	5.5	3.5	4.5
2	14.0	12.5	13.0	9.0	6.5	7.5	5.5	3.5	4.5	6.5	5.5	6.0
3	12.5	10.0	11.5	9.5	6.5	8.0	5.0	4.0	4.5	5.5	4.0	4.5
4	13.0	12.5	12.5	9.0	7.0	8.0	7.0	5.0	6.0	4.0	3.5	4.0
5	14.5	12.0	13.0	9.0	6.5	7.5	7.0	6.5	7.0	4.0	3.0	3.5
6	15.0	13.0	14.5	9.5	7.0	8.0	7.0	5.0	6.0	4.5	3.0	4.0
7	13.0	12.0	12.5	9.0	7.5	8.5	7.0	5.0	6.0	4.5	2.5	3.5
8	11.5	9.0	10.0	9.0	8.5	9.0	9.0	7.0	8.0	4.0	2.5	3.5
9	10.5	8.5	9.5	8.5	6.5	7.5	9.0	7.0	8.0	4.5	3.5	4.0
10	11.0	8.0	9.5	8.5	6.0	7.0	7.0	5.0	6.0	4.0	2.0	3.0
11	12.5	9.0	11.0	9.0	6.5	8.0	5.0	4.5	4.5	2.0	1.5	2.0
12	14.0	12.0	13.0	8.0	7.0	7.5	5.0	4.5	5.0	2.0	1.5	1.5
13	14.0	12.0	13.0	7.5	7.0	7.0	5.5	4.5	5.0	3.5	2.0	2.5
14	14.5	12.0	13.0	---	---	---	5.5	4.5	5.0	4.0	2.5	3.5
15	12.0	9.0	10.5	---	---	---	5.0	4.0	4.5	2.5	1.5	2.0
16	9.5	7.5	8.5	---	---	---	6.0	4.5	5.0	2.5	1.5	2.0
17	10.5	8.5	9.0	---	---	---	5.5	5.0	5.5	2.0	1.0	1.5
18	9.0	6.5	8.0	---	---	---	5.0	4.0	4.5	2.0	.5	1.5
19	10.5	9.0	9.5	---	---	---	4.0	2.5	3.0	1.0	.5	.5
20	10.5	9.0	10.0	---	---	---	3.5	2.5	3.0	.5	.5	.5
21	11.0	7.5	9.0	---	---	---	5.0	4.0	4.5	2.0	.5	1.0
22	12.0	8.5	10.0	---	---	---	5.0	4.0	4.5	2.0	1.5	1.5
23	12.5	9.5	11.0	---	---	---	4.0	2.5	3.5	3.0	1.5	2.5
24	10.5	8.5	9.0	---	---	---	3.5	2.0	3.0	3.0	1.5	2.5
25	9.5	6.5	8.0	---	---	---	4.5	2.5	3.5	3.0	1.5	2.0
26	11.0	9.0	10.0	---	---	---	4.0	2.5	3.5	4.0	2.5	3.5
27	11.0	9.0	10.5	---	---	---	4.0	2.5	3.5	5.0	3.5	4.0
28	9.5	7.0	8.5	---	---	---	2.5	2.0	2.0	5.0	4.0	4.5
29	9.5	7.0	8.0	4.5	3.0	4.0	2.0	1.5	2.0	4.5	4.0	4.5
30	8.5	6.5	7.5	6.0	4.0	5.0	3.0	2.0	2.0	4.0	3.5	4.0
31	9.5	6.5	8.0	---	---	---	5.0	3.0	4.0	4.0	3.0	3.5
MONTH	15.0	6.5	10.5	10.0	3.0	7.5	9.0	1.5	4.5	6.5	.5	3.0

LEHIGH RIVER BASIN

01449360 POHOPOCO CREEK AT KRESGEVILLE, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.0	1.0	2.0	4.5	2.5	3.5	12.0	9.5	11.0	14.0	10.5	12.5
2	2.0	.5	1.5	5.0	4.0	4.5	10.5	7.5	8.5	13.5	9.0	11.5
3	2.0	.5	1.5	5.0	4.5	5.0	8.5	7.0	8.0	12.5	9.0	11.0
4	3.0	1.5	2.0	5.5	4.5	5.0	7.0	6.0	6.5	14.0	11.0	12.5
5	1.5	.5	1.0	6.0	5.0	5.5	8.0	6.0	7.0	14.0	9.5	12.0
6	.5	.5	.5	6.0	5.5	5.5	8.0	5.5	6.5	14.0	9.5	12.0
7	.5	.5	.5	6.0	4.5	5.5	7.5	4.0	5.5	16.0	10.5	13.0
8	1.5	.5	1.0	6.0	4.0	5.0	7.0	4.0	5.5	18.0	12.0	15.0
9	1.0	.5	.5	6.0	4.0	5.5	5.5	5.0	5.0	20.5	14.0	17.0
10	2.0	.5	.5	6.5	5.5	6.0	8.0	4.5	6.0	18.5	15.0	16.5
11	2.5	.5	.5	5.5	4.0	5.0	9.5	5.0	7.5	18.5	14.0	16.0
12	.5	.5	.5	4.0	2.5	3.5	9.0	7.0	8.0	16.0	14.0	15.0
13	.5	.5	.5	6.0	3.0	4.5	8.5	7.0	8.0	14.5	13.5	14.0
14	1.0	.5	.5	7.5	5.5	6.5	7.5	6.0	7.0	14.0	13.0	13.5
15	.5	.5	.5	5.0	2.5	3.5	9.0	7.0	8.0	16.5	12.0	14.0
16	.5	.5	.5	5.0	1.5	3.0	8.0	7.0	7.5	16.0	13.0	14.5
17	1.5	.5	.5	7.0	3.0	5.0	8.5	7.0	7.5	16.0	11.0	13.5
18	.5	.5	.5	8.5	5.5	7.0	11.0	6.0	8.5	14.0	11.5	12.5
19	.5	.5	.5	8.0	3.5	6.0	11.0	6.5	8.5	13.5	12.5	13.0
20	.5	.5	.5	9.0	5.0	7.0	12.0	6.5	9.0	14.5	12.5	13.5
21	.5	.5	.5	10.0	5.5	8.0	12.5	7.0	10.0	13.5	12.5	13.0
22	1.0	.5	.5	10.5	6.0	8.5	13.0	8.5	11.0	15.5	12.0	13.5
23	2.0	1.0	1.0	11.0	6.5	9.0	14.5	10.0	12.0	14.0	12.0	13.0
24	2.0	1.0	1.0	10.0	7.0	9.0	13.5	9.5	12.0	14.5	13.5	14.0
25	2.0	1.5	1.5	9.0	7.0	8.5	14.5	11.0	13.0	14.5	13.5	14.0
26	2.0	1.0	1.5	7.0	5.0	6.5	13.5	10.5	13.0	---	---	---
27	2.5	1.5	2.0	7.5	4.0	5.5	13.0	11.0	12.0	---	---	---
28	5.0	2.0	2.5	8.0	3.5	6.0	12.5	10.5	12.0	---	---	---
29	---	---	---	9.0	6.0	7.5	13.5	10.5	12.0	---	---	---
30	---	---	---	10.5	8.0	9.0	14.0	9.0	11.5	15.0	14.5	15.0
31	---	---	---	12.0	9.0	10.5	---	---	---	16.0	14.0	15.0
MONTH	5.0	.5	1.0	12.0	1.5	6.0	14.5	4.0	9.0	20.5	9.0	13.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	17.5	14.5	16.0	18.0	16.0	17.0	23.0	21.0	22.0	21.5	19.0	20.5
2	16.0	15.0	15.5	18.0	16.0	17.0	23.5	21.5	22.5	22.0	20.0	21.0
3	15.5	14.5	15.0	20.5	17.0	18.5	23.0	21.0	22.0	23.0	21.0	21.5
4	17.0	14.5	15.5	18.5	14.5	16.0	24.0	21.0	22.5	23.0	20.5	21.5
5	17.5	14.5	16.0	15.5	13.0	14.5	24.0	21.0	22.5	21.5	21.0	21.0
6	16.0	14.5	15.5	16.0	13.0	15.0	23.5	21.0	22.0	23.0	21.0	22.0
7	17.5	14.5	16.0	17.5	14.0	15.5	21.5	18.5	20.0	21.0	20.0	20.5
8	17.5	16.0	17.0	18.5	14.5	16.5	23.5	20.0	21.5	19.5	17.0	18.0
9	17.0	16.0	16.5	19.5	16.5	18.0	23.0	20.0	21.5	16.5	14.5	16.0
10	17.0	16.0	16.5	18.5	17.0	18.0	23.0	20.5	21.5	17.0	14.0	15.5
11	17.0	14.5	16.0	20.5	17.0	18.5	21.5	18.0	20.0	18.0	16.0	17.0
12	15.5	12.5	14.0	21.0	18.5	20.0	18.0	16.0	17.0	16.5	14.0	15.5
13	15.5	12.0	14.0	22.5	19.0	21.0	19.0	15.5	17.0	17.0	14.5	16.0
14	16.5	12.5	14.5	22.5	20.0	21.0	17.5	17.0	17.0	20.5	17.0	18.0
15	18.0	13.5	16.0	22.0	19.0	20.5	16.5	15.5	16.0	18.5	16.0	17.0
16	19.5	15.5	17.5	23.0	21.0	21.5	18.0	14.5	16.0	16.0	13.5	15.0
17	18.5	16.0	17.5	21.0	20.0	20.5	17.5	14.0	16.0	16.5	14.0	15.0
18	18.5	16.5	17.5	23.5	18.5	20.0	16.5	15.5	15.5	17.0	14.0	15.5
19	19.0	15.5	17.5	21.0	19.0	20.0	19.0	15.5	17.0	16.5	15.0	16.0
20	18.5	14.5	17.0	20.0	18.0	19.0	20.0	17.0	18.5	14.5	12.0	13.5
21	17.5	15.0	16.5	20.5	18.0	19.5	20.5	17.5	19.0	17.0	12.5	14.0
22	17.0	15.0	15.5	21.5	19.0	20.0	20.5	17.0	19.0	17.0	16.0	16.0
23	18.0	14.5	16.0	22.5	20.0	21.0	19.5	17.5	18.5	16.0	14.5	15.5
24	17.0	14.0	15.0	22.5	20.5	21.5	20.5	18.5	19.5	15.0	12.5	13.5
25	17.0	12.5	14.5	23.5	21.0	22.0	22.5	19.5	21.0	14.5	12.5	13.5
26	17.0	13.0	15.5	23.0	21.5	22.0	22.5	20.5	21.5	15.5	13.0	14.0
27	18.0	14.0	16.5	23.0	20.5	21.5	23.5	21.0	22.0	15.0	13.5	14.5
28	17.0	15.0	16.5	21.5	20.0	21.0	23.5	21.0	22.0	15.0	14.0	14.0
29	16.0	15.0	15.5	20.5	19.0	19.5	22.0	21.0	21.5	16.0	14.5	15.0
30	17.0	15.5	16.5	21.0	18.5	20.0	23.0	20.5	21.5	16.0	15.5	15.5
31	---	---	---	22.5	20.0	21.0	23.0	20.5	21.5	---	---	---
MONTH	19.5	12.0	16.0	23.5	13.0	19.5	24.0	14.0	20.0	23.0	12.0	16.5

01449500 WILD CREEK AT HATCHERY, PA

LOCATION.--Lat 40°55'22", long 75°33'32", Carbon County, Hydrologic Unit 02040106, on left bank at Hatchery, 0.5 mi (0.8 km) downstream from Penn Forest Dam, 2.2 mi (3.5 km) upstream from Wild Creek Dam, 4 mi (6 km) upstream from mouth, and 9.5 mi (15.3 km) northeast of Palmerton.

DRAINAGE AREA.--16.8 mi² (43.5 km²).

PERIOD OF RECORD.--October 1940 to September 1979 (discontinued). Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1051: Drainage area. WSP 1382: 1941-42, 1943(M), 1944-45, 1947, 1949, 1951-53.

GAGE.--Water-stage recorder. Datum of gage is 842.71 ft (256.858 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow completely regulated since January 1959 by Penn Forest Reservoir (station 01449400) 0.5 mi (0.8 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--39 years, 36.2 ft³/s (1.025 m³/s), 29.28 in/yr (744 mm/yr), adjusted for storage since January 1959.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,360 ft³/s (66.8 m³/s) May 23, 1942, gage height, 6.00 ft (1.829 m), from rating curve extended above 220 ft³/s (6.2 m³/s) on basis of contracted-opening measurement at gage height 5.59 ft (1.704 m); minimum, 1.0 ft³/s (0.028 m³/s) Aug. 3-6, Oct. 2, 1958, Oct. 24, 1969, result of regulation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 177 ft³/s (5.01 m³/s) Mar. 6, 7, gage height, 2.87 ft (0.875 m); minimum, 4.1 ft³/s (0.12 m³/s) June 26, gage height, 1.42 ft (0.433 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	29	38	27	67	68	44	48	73	50	44	13
2	40	29	38	35	60	67	48	44	67	56	47	13
3	36	29	38	37	53	68	50	45	64	61	48	13
4	36	28	34	22	50	70	48	51	61	61	48	27
5	36	28	29	11	47	103	56	46	56	61	48	40
6	33	28	25	9.5	42	166	60	40	51	61	48	45
7	30	28	22	9.8	38	163	56	39	48	63	48	41
8	30	28	23	14	37	136	39	38	45	64	48	41
9	30	31	19	13	36	115	45	37	44	64	48	41
10	32	32	12	11	33	107	64	42	41	64	48	41
11	34	33	8.0	10	31	109	56	42	42	67	48	40
12	34	33	7.2	9.6	28	88	54	38	40	68	50	40
13	34	33	6.6	9.0	28	79	50	40	35	68	48	40
14	36	33	6.4	8.7	28	74	61	39	32	69	48	41
15	35	33	14	8.2	25	74	63	38	31	68	48	41
16	35	33	31	8.2	26	64	58	41	30	69	48	41
17	35	33	31	8.0	26	61	55	35	29	68	48	41
18	35	31	31	7.7	22	58	53	33	30	68	48	41
19	35	27	31	7.5	27	54	48	38	24	68	48	41
20	35	28	31	7.2	27	52	43	44	22	68	36	41
21	35	28	31	12	20	50	42	40	22	68	26	42
22	35	28	31	12	21	48	41	37	23	68	26	42
23	35	30	30	9.9	26	46	41	48	25	68	26	42
24	35	32	30	13	48	42	39	107	23	68	26	42
25	35	32	13	20	74	58	38	136	37	68	26	40
26	35	34	6.8	14	102	56	40	132	43	73	26	38
27	35	36	6.6	45	90	52	59	113	50	73	26	38
28	34	36	12	70	74	46	68	103	50	73	18	38
29	34	36	26	73	---	47	58	90	50	74	12	38
30	32	37	26	83	---	46	50	81	50	86	12	38
31	29	---	26	83	---	44	---	81	---	53	13	---
TOTAL	1070	936	713.6	708.3	1186	2311	1527	1786	1238	2058	1182	1120
MEAN	34.5	31.2	23.0	22.8	42.4	74.5	50.9	57.6	41.3	66.4	38.1	37.3
MAX	45	37	38	83.	102	166	68	136	73	86	50	45
MIN	29	27	6.4	7.2	20	42	38	33	22	50	12	13
MEAN≠	8.48	10.9.	31.1	106	42.0	72.8	51.4	58.3	34.0	7.19	6.58	18.3
CFSM≠	0.50	0.65	1.85	6.33	2.50	4.33	3.06	3.47	2.03	0.43	0.39	1.09
IN≠	0.58	0.72	2.14	7.30	2.61	4.99	3.41	4.00	2.26	0.59	0.45	1.22

CAL YR 1978 TOTAL 16822.6 MEAN 46.1 MAX 266 MIN 4.6 MEAN≠ 39.1 CFSM≠ 2.33 IN≠ 31.60
WTR YR 1979 TOTAL 15835.9 MEAN 43.4 MAX 166 MIN 6.4 MEAN≠ 37.4 CFSM≠ 2.22 IN≠ 30.19

≠ Adjusted for change in contents in Penn Forest Reservoir.

01449800 POHOPOCO CREEK BELOW BELTZVILLE DAM NEAR PARRYVILLE, PA

LOCATION.--Lat 40°50'44", long 75°38'46", Carbon County, Hydrologic Unit 02040106, on right bank 0.1 mi (0.2 km) upstream from Sawmill Run, 0.45 mi (0.72 km) downstream from Beltzville Dam, 1.3 mi (2.1 km) upstream from Bull Run, and 2.3 mi (3.7 km) northeast of Parryville.

DRAINAGE AREA.--96.4 mi² (249.7 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 492.05 ft (149.977 m) NGVD of 1929.

REMARKS.--Records good. Flow regulated by Wild Creek Reservoir (station 01449700) and Penn Forest Reservoir (station 01449400), 7.3 mi (11.7 km) and 10.0 mi (16.1 km) upstream, respectively, and Beltzville Lake (station 01449790) 0.45 mi (0.72 km) upstream. Figures of daily discharge do not include diversion from Wild Creek Reservoir to city of Bethlehem. Diversion from Tunkhannock Creek to Wild Creek basin above station since October 1969.

AVERAGE DISCHARGE.--12 years, 224 ft³/s (6.344 m³/s), 31.52 in/yr (801 mm/yr), adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,740 ft³/s (49.3 m³/s) May 8, 1973, gage height, 5.59 ft (1.704 m); minimum, 0.90 ft³/s (0.025 m³/s) Oct. 11, 12, 1969, gage height, 2.12 ft (0.646 m), result of upstream shutoff.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,300 ft³/s (36.8 m³/s) Jan. 26, gage height, 5.11 ft (1.558 m); minimum daily, 27 ft³/s (0.76 m³/s) Dec. 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	160	31	125	382	931	278	349	652	65	125	30
2	63	370	31	127	382	1030	278	382	156	65	117	30
3	63	492	30	226	236	733	278	267	156	65	99	30
4	63	605	31	382	156	551	279	215	222	65	78	120
5	63	603	31	523	156	552	282	215	377	97	67	269
6	63	597	30	638	205	561	282	215	377	148	67	269
7	63	268	30	640	278	740	282	215	377	120	67	269
8	63	76	31	653	278	832	282	215	260	102	67	269
9	63	60	32	649	278	826	282	160	152	102	67	269
10	63	46	32	644	278	548	282	135	152	102	67	269
11	63	46	32	642	278	392	282	135	152	102	67	141
12	63	46	32	638	183	392	282	135	152	102	67	42
13	63	46	32	472	101	392	282	188	152	102	67	41
14	63	46	32	375	83	392	282	207	152	102	67	41
15	63	46	32	372	83	392	282	207	152	102	67	41
16	63	46	32	372	83	392	282	207	152	102	67	41
17	63	46	31	232	83	392	281	170	117	102	67	41
18	63	46	28	152	83	392	182	152	102	145	67	41
19	56	46	27	152	83	275	128	152	102	148	67	41
20	52	46	27	152	83	211	154	152	102	145	67	41
21	52	46	192	157	110	209	167	152	102	145	67	42
22	52	46	163	232	166	207	167	152	102	107	67	42
23	52	46	163	382	207	207	167	152	79	83	67	42
24	52	46	163	323	157	207	167	152	65	83	52	42
25	52	46	167	370	67	207	167	400	65	83	30	42
26	52	46	167	997	68	208	167	500	65	83	30	103
27	52	36	139	1270	362	252	168	600	65	83	30	135
28	52	30	125	1250	826	278	239	650	65	83	30	135
29	52	30	125	1240	---	278	278	700	65	83	30	135
30	52	30	125	1220	---	278	278	765	[illegible]	83	30	135
31	52	---	125	724	---	278	---	912	[illegible]	83	30	---
TOTAL	1814	4139	2178	16331	5735	13535	7207	9204	4954	3078	1954	3188
MEAN	58.5	138	70.3	527	205	437	240	297	165	99.3	63.0	106
MAX	63	605	167	1270	826	1030	282	912	652	148	125	269
MIN	52	30	27	125	67	207	128	135	65	65	30	30
≠	+37.3	+36.8	+37.7	+38.4	+39.1	+38.5	+37.9	+39.0	+39.2	+41.9	+43.0	+43.1
MEAN≠	60.2	148	110	674	304	413	314	341	176	89.7	57.1	144
CFSM≠	.62	1.53	1.14	6.99	3.15	4.28	3.25	3.54	1.83	.93	.59	1.49
IN≠	.72	1.71	1.32	8.06	3.28	4.94	3.63	4.08	2.04	1.07	.68	1.66

CAL YR 1978 TOTAL 70771 MEAN 194 MAX 1050 MIN 27 MEAN≠ 222 CFSM≠ 2.31 IN≠ 31.32
WTR YR 1979 TOTAL 73317 MEAN 201 MAX 1270 MIN 27 MEAN≠ 236 CFSM≠ 2.45 IN≠ 33.20

≠ Diversion above station from Wild Creek Reservoir for municipal supply, equivalent in cubic feet per second, furnished by City of Bethlehem.

≠ Adjusted for diversion from Wild Creek Reservoir and change in contents in Penn Forest and Wild Creek Reservoirs and Beltzville Lake.

01449800 POHOPOCO CREEK BELOW BELTZVILLE DAM NEAR PARRYVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1968 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 26.5°C on several days during July, August 1970; minimum, freezing point December 9, 1969.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 20.0°C September 6; minimum, 1.5°C February 17, 19.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.0	15.5	15.5	---	---	---	9.0	8.0	8.5	4.5	3.0	3.5
2	16.0	15.5	15.5	---	---	---	9.0	8.0	8.0	4.0	4.0	4.0
3	16.0	15.0	15.5	---	---	---	8.0	7.5	8.0	4.0	3.5	3.5
4	16.0	15.0	15.5	---	---	---	8.5	8.0	8.0	3.5	3.0	3.5
5	16.0	15.0	15.5	---	---	---	8.5	7.5	8.0	3.5	3.0	3.5
6	16.0	15.0	15.5	---	---	---	8.5	7.0	7.5	3.0	2.5	2.5
7	15.5	14.5	15.0	---	---	---	8.5	7.0	7.5	3.0	2.5	2.5
8	15.5	14.5	14.5	---	---	---	8.5	8.0	8.0	3.0	2.5	3.0
9	15.5	14.5	14.5	---	---	---	8.0	7.0	7.5	3.5	2.5	3.0
10	15.5	14.5	14.5	---	---	---	7.0	6.5	7.0	3.5	2.5	2.5
11	15.5	14.5	14.5	---	---	---	7.0	6.5	7.0	3.0	2.5	2.5
12	15.5	14.5	15.0	---	---	---	7.0	6.5	7.0	2.5	2.0	2.5
13	15.0	14.5	15.0	---	---	---	7.0	6.5	6.5	2.5	2.0	2.0
14	15.0	14.5	14.5	---	---	---	6.5	6.0	6.5	3.0	2.0	2.0
15	15.0	14.0	14.5	---	---	---	7.0	6.0	6.5	2.5	2.0	2.0
16	15.0	14.0	14.5	---	---	---	7.0	6.0	6.5	2.5	2.0	2.0
17	15.0	14.0	14.5	---	---	---	6.5	5.5	6.0	2.5	2.0	2.0
18	14.5	14.0	14.0	---	---	---	6.5	5.5	5.5	2.0	2.0	2.0
19	14.5	14.0	14.0	---	---	---	6.0	5.0	5.0	2.0	2.0	2.0
20	14.5	14.0	14.0	---	---	---	5.5	5.0	5.0	2.0	2.0	2.0
21	14.5	13.5	14.0	---	---	---	5.5	5.0	5.5	2.5	2.0	2.5
22	14.5	13.5	14.0	---	---	---	5.5	5.0	5.0	2.5	2.0	2.0
23	---	---	---	---	---	---	5.0	5.0	5.0	2.5	2.0	2.0
24	---	---	---	---	---	---	5.0	4.5	5.0	2.5	2.0	2.5
25	---	---	---	---	---	---	5.0	4.5	5.0	3.0	2.0	2.5
26	---	---	---	---	---	---	5.0	4.0	4.5	3.5	2.5	3.0
27	---	---	---	---	---	---	4.5	4.0	4.0	3.5	2.5	3.0
28	---	---	---	---	---	---	4.0	3.5	4.0	3.0	2.5	2.5
29	---	---	---	9.5	8.0	9.0	3.5	3.0	3.5	3.0	2.5	3.0
30	---	---	---	9.0	8.5	8.5	3.5	2.5	3.0	2.5	2.5	2.5
31	---	---	---	---	---	---	3.0	2.5	3.0	3.0	2.0	2.5
MONTH	16.0	13.5	14.5	9.5	8.0	9.0	9.0	2.5	6.0	4.5	2.0	2.5

LEHIGH RIVER BASIN

01449800 POHOPOCO CREEK BELOW BELTZVILLE DAM NEAR PARRYVILLE, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.5	2.0	2.5	3.0	2.5	2.5	7.0	5.5	6.5	10.5	8.0	9.5
2	2.5	2.0	2.0	3.0	2.5	2.5	7.0	7.0	7.0	11.0	9.5	10.5
3	2.5	2.0	2.0	2.5	2.5	2.5	7.0	6.5	7.0	11.5	10.0	11.0
4	2.5	2.0	2.0	2.5	2.5	2.5	7.0	6.5	6.5	11.5	10.0	11.0
5	2.5	2.0	2.0	3.0	2.5	2.5	7.0	6.5	6.5	11.5	10.5	11.0
6	2.5	2.0	2.0	3.0	2.5	2.5	7.0	6.5	6.5	12.0	10.5	11.5
7	2.5	2.5	2.5	3.5	2.5	3.0	6.5	6.0	6.5	12.5	11.0	11.5
8	2.5	2.0	2.5	3.5	3.0	3.5	6.5	6.0	6.5	12.5	11.0	11.5
9	2.5	2.0	2.0	3.5	3.0	3.5	6.5	6.0	6.0	12.5	10.5	12.0
10	2.5	2.0	2.0	3.5	3.0	3.5	6.5	6.0	6.5	13.5	12.0	13.0
11	2.5	2.0	2.5	3.5	3.5	3.5	7.0	6.0	6.5	15.5	12.5	14.0
12	2.5	2.0	2.0	4.0	3.5	3.5	7.0	6.5	6.5	14.5	13.5	14.0
13	2.5	2.0	2.0	4.0	3.0	3.5	7.0	6.5	7.0	14.0	12.5	13.0
14	2.5	2.0	2.0	4.0	3.5	3.5	7.0	6.5	7.0	13.5	13.0	13.5
15	2.5	2.0	2.5	4.0	3.5	3.5	7.0	7.0	7.0	14.0	12.5	13.0
16	2.5	2.0	2.0	3.5	3.0	3.5	7.0	7.0	7.0	14.0	12.5	13.5
17	2.0	1.5	2.0	4.0	3.5	3.5	7.0	6.5	7.0	15.5	13.5	14.5
18	2.0	2.0	2.0	4.0	3.5	4.0	7.5	6.5	7.0	16.0	13.5	14.5
19	2.5	1.5	2.0	4.0	3.5	4.0	8.0	7.0	7.5	15.0	14.0	14.5
20	2.5	2.0	2.0	4.5	3.5	4.0	8.5	7.5	8.0	14.0	13.5	14.0
21	2.5	2.0	2.0	4.5	4.0	4.0	9.0	7.5	8.0	14.0	13.0	13.5
22	3.0	2.0	2.5	4.5	4.0	4.0	9.0	8.0	8.5	14.5	13.0	14.0
23	2.5	2.0	2.5	5.0	4.0	4.5	9.0	8.0	8.5	14.5	14.0	14.5
24	2.5	2.0	2.5	5.0	4.5	5.0	9.5	8.0	9.0	14.5	13.0	14.0
25	3.0	2.5	2.5	5.5	5.0	5.0	10.0	8.0	9.0	15.5	12.5	14.0
26	2.5	2.0	2.5	5.0	5.0	5.0	11.5	8.5	10.0	14.0	12.0	13.0
27	2.5	2.0	2.5	5.0	5.0	5.0	11.5	7.5	9.5	13.5	13.0	13.0
28	3.0	2.5	2.5	5.0	5.0	5.0	10.5	7.5	9.0	13.0	12.5	13.0
29	---	---	---	5.5	5.0	5.0	10.5	9.0	10.0	14.0	10.0	11.5
30	---	---	---	6.5	5.5	6.0	10.5	9.0	10.0	10.5	9.5	10.5
31	---	---	---	7.0	5.5	6.0	---	---	---	11.0	9.5	10.0
MONTH	3.0	1.5	2.0	7.0	2.5	4.0	11.5	5.5	7.5	16.0	8.0	12.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	15.5	10.0	12.5	14.5	13.0	13.5	17.0	16.0	16.5	16.0	13.0	14.0
2	15.5	14.5	15.0	14.0	13.0	13.5	17.0	16.5	17.0	15.5	14.0	14.5
3	15.5	14.5	15.0	15.0	13.5	14.0	17.0	16.5	17.0	15.5	14.0	14.5
4	16.0	14.5	15.5	14.0	13.5	13.5	17.0	16.5	16.5	18.0	13.5	15.5
5	15.5	14.0	15.0	15.0	13.0	14.0	---	---	---	19.0	18.0	18.0
6	16.0	15.5	16.0	14.5	14.0	14.0	17.0	16.0	16.0	20.0	17.0	18.0
7	16.5	15.5	16.0	15.0	14.0	14.5	17.0	15.5	16.0	18.5	17.5	18.0
8	16.5	15.5	16.0	15.0	14.0	14.5	17.5	15.5	16.5	18.5	18.0	18.0
9	16.5	16.0	16.0	15.0	14.0	14.5	17.0	16.0	16.5	18.0	17.5	17.5
10	16.0	16.0	16.0	15.0	14.5	14.5	16.5	15.5	16.0	17.5	17.5	17.5
11	16.0	15.0	15.5	15.5	14.5	14.5	16.5	16.0	16.0	18.5	15.5	17.0
12	16.0	14.0	15.0	15.5	14.5	15.0	17.0	15.5	16.5	17.0	15.5	16.0
13	16.0	15.5	16.0	15.5	14.5	15.0	17.0	15.5	16.0	17.0	15.5	16.0
14	16.0	15.0	15.5	15.5	14.0	15.0	16.0	15.5	16.0	16.5	15.5	16.0
15	16.0	15.5	16.0	16.0	14.0	14.5	16.0	15.5	16.0	17.0	15.5	16.0
16	16.5	16.0	16.0	15.5	14.0	14.5	17.0	15.5	16.0	17.0	15.5	16.0
17	17.5	16.5	17.0	16.0	14.5	14.5	17.0	15.5	16.0	17.0	15.5	16.0
18	17.5	16.5	17.0	16.0	14.5	15.5	16.0	15.5	16.0	17.0	15.5	16.0
19	19.0	17.0	17.5	16.5	15.5	16.0	17.0	16.0	16.0	17.0	15.5	16.0
20	18.0	17.0	17.5	16.0	15.5	16.0	17.0	16.0	16.0	17.0	15.5	16.0
21	18.0	15.5	17.0	16.0	16.0	16.0	17.0	16.0	16.0	16.0	15.5	16.0
22	17.0	13.5	15.5	16.0	15.5	16.0	17.0	16.0	16.5	16.5	15.5	16.0
23	14.0	13.0	13.5	16.5	15.5	16.0	16.5	16.0	16.0	17.0	15.0	16.0
24	14.0	13.0	13.5	16.5	15.5	16.0	17.0	14.0	15.5	17.0	15.0	15.5
25	15.5	13.0	13.5	16.5	16.0	16.0	16.0	13.5	14.0	16.5	15.0	15.5
26	15.0	13.0	13.5	16.5	15.5	16.0	15.5	13.5	14.0	16.5	15.0	15.5
27	14.5	13.0	13.5	17.0	16.0	16.0	16.0	13.5	14.5	16.5	16.0	16.0
28	14.0	13.0	13.5	16.5	15.5	16.0	16.0	13.5	14.5	16.0	16.0	16.0
29	14.0	13.5	13.5	16.0	16.0	16.0	15.0	14.0	14.0	16.0	16.0	16.0
30	14.5	13.5	14.0	17.0	16.0	16.0	15.5	13.5	14.5	16.5	16.0	16.0
31	---	---	---	17.0	16.0	16.0	16.0	13.5	14.5	---	---	---
MONTH	19.0	10.0	15.0	17.0	13.0	15.0	17.5	13.5	16.0	20.0	13.0	16.0

01450500 AQUASHICOLA CREEK AT PALMERTON, PA

LOCATION.--Lat 40°48'22", long 75°35'54", Carbon County, Hydrologic Unit 02040106, on right bank 1,200 ft (370 m) upstream from Sixth Street Bridge in Palmerton, and 1.2 mi (1.9 km) upstream from mouth.

DRAINAGE AREA.--76.7 mi² (198.7 km²).

PERIOD OF RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 1051: 1940-45 (monthly net diversion), drainage area. WDR PA-68: 1967 (monthly net diversion).

GAGE.--Water-stage recorder. Datum of gage is 389.08 ft (118.592 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Regulation at low flow by mills above station. Occasional diversion from Pohopoco Creek into Aquashicola Creek above station . Figures of daily discharge do not include water diverted above station from Aquashicola Creek by the New Jersey Zinc Co. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--40 years, 154 ft³/s (4.361 m³/s), 27.23 in/yr (692 mm/yr), adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft³/s (331 m³/s) July 10, 1945, gage height, 13.63 ft (4.154 m), from rating curve extended above 2,500 ft³/s (71 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 2.6 ft³/s (0.074 m³/s) Sept. 12, 1957, from rating curve extended below 16 ft³/s (0.45 m³/s); minimum gage height, 2.44 ft (0.744 m) Sept. 16, 1964; minimum daily discharge, 9.1 ft³/s (0.26 m³/s) Sept. 15, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 2	Unknown	1,810	51.3	6.83	2.082	Jan. 25	0130	*3,500	99.1	*8.96	2.731
Jan. 8	1345	1,040	29.5	5.63	1.716	Feb. 26	1030	1,780	50.4	6.78	2.067
Jan. 21	2200	1,720	48.7	6.70	2.042	Sept. 6	1830	1,670	47.3	6.63	2.021

Minimum discharge, 26 ft³/s (0.74 m³/s) Nov. 13, 14, 15, 16, gage height, 2.78 ft (0.847 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	44	70	300	240	353	178	261	234	76	73	42
2	57	42	75	800	216	322	184	228	206	73	71	40
3	54	42	70	1300	198	301	192	214	193	65	71	66
4	57	41	70	669	186	283	204	217	180	68	63	63
5	58	39	166	462	154	413	285	188	158	71	57	51
6	107	36	169	375	160	590	303	170	145	61	56	998
7	80	35	153	373	148	546	274	158	131	49	49	725
8	71	35	183	939	142	439	250	148	120	45	48	374
9	65	34	471	761	127	369	285	141	111	45	47	274
10	60	31	587	506	126	336	348	136	105	49	45	226
11	56	31	384	400	114	373	335	133	120	49	61	193
12	54	29	296	350	116	347	308	124	105	49	107	168
13	57	28	249	300	107	314	275	138	95	48	105	150
14	80	29	215	280	110	295	321	136	91	84	73	173
15	78	27	189	270	106	262	320	124	93	116	63	183
16	66	30	170	220	95	231	310	127	91	101	55	133
17	63	35	158	195	84	214	286	111	97	286	52	118
18	60	120	144	183	90	199	258	109	95	165	55	107
19	61	80	131	160	89	186	234	122	91	173	60	103
20	63	60	128	160	89	175	214	136	84	141	52	95
21	60	54	162	855	87	166	199	122	84	124	47	163
22	57	50	131	950	92	157	184	118	85	109	47	490
23	55	55	118	500	101	149	173	162	91	101	45	409
24	51	85	110	800	744	164	161	587	78	93	49	316
25	51	70	200	2000	1000	255	154	832	75	87	69	267
26	49	65	150	755	1400	260	157	841	69	84	71	231
27	57	65	130	541	524	244	278	608	65	78	60	203
28	52	70	115	424	402	223	423	483	73	75	55	185
29	48	66	105	354	---	219	360	374	107	89	52	201
30	45	71	100	306	---	200	299	319	82	103	55	173
31	45	---	100	272	---	187	---	286	---	80	47	---
TOTAL	1875	1499	5499	16760	7047	8772	7752	7853	3354	2857	1862	6920
MEAN	60.5	50.0	177	541	252	283	258	253	112	92.2	60.1	231
MAX	107	120	587	2000	1400	590	423	841	234	286	107	998
MIN	45	27	70	160	84	149	154	109	65	45	45	40
/	+0.3	-0.6	+0.6	+0.8	+0.9	+0.8	+0.7	+0.4	-0.1	-0.4	-0.7	0
MEANǂ	60.8	49.4	178	541	253	284	259	2.54	112	91.8	59.4	231
CFSMǂ	.79	.64	2.32	7.06	3.29	3.70	3.38	3.31	1.46	1.20	.77	3.01
INǂ	.91	.72	2.68	8.14	3.43	4.27	3.77	3.81	1.63	1.38	.89	3.35

CAL YR 1978	TOTAL	60490	MEAN	166	MAX	1620	MIN	27	MEANǂ	165	CFSMǂ	2.16	INǂ 29.29
WTR YR 1979	TOTAL	72050	MEAN	197	MAX	2000	MIN	27	MEANǂ	198	CFSMǂ	2.58	INǂ 34.99

/ Figures of net diversion, equivalent in cubic feet per second, include water diverted from Pohopoco Creek to Aquashicola Creek plus water diverted above station from Aquashicola Creek, furnished by New Jersey Zinc Company and Palmer Water Company.

ǂ Adjusted for diversion.

01451000 LEHIGH RIVER AT WALNUTPORT, PA

LOCATION.--Lat 40°45'25", long 75°36'12", Northampton County, Hydrologic Unit 02040106, on left bank 0.3 mi (0.5 km) upstream from highway bridge at Walnutport, and 0.4 mi (0.6 km) upstream from Trout Creek.

DRAINAGE AREA.--889 mi² (2,303 km²).

PERIOD OF RECORD.--October 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 350.27 ft (106.762 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Wild Creek Reservoir (station 01449700) since January 1941, Penn Forest Reservoir (station 01449400) since October 1958, Francis E. Walter Lake (station 01447800) since February 1961, and Beltzville Lake (station 01449790) since February 1971. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--33 years, 1,876 ft³/s (53.13 m³/s), 28.66 in/yr (728 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 77,800 ft³/s (2,200 m³/s) Aug. 19, 1955, gage height, 17.68 ft (5.389 m); minimum, 57 ft³/s (1.61 m³/s) July 27, 1965, gage height, 1.25 ft (0.381 m), result of upstream shutoff.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 20.6 ft (6.28 m) May 23, 1942, from floodmarks.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	627	835	780	1910	3770	7740	2470	2960	3970	1450	627	371
2	464	1140	744	6680	3320	6690	2450	2850	2920	1240	672	367
3	431	1140	744	8110	2830	4770	2530	2490	2630	1000	616	458
4	464	1280	1030	7740	2420	4890	2520	2650	2500	812	551	593
5	502	1280	1780	7580	2350	6290	2930	2780	2520	818	467	786
6	788	1260	1770	6530	2060	9600	2970	2400	2440	901	489	4060
7	638	906	1530	4610	2280	9020	2690	2120	2350	1050	478	3800
8	656	605	1600	8380	2210	9620	2550	2030	2170	932	448	3600
9	672	572	3060	7080	2250	8490	2730	1680	1710	757	433	3300
10	638	550	3890	5910	2070	5800	3440	1880	1640	653	432	2880
11	561	550	3040	5240	2000	5910	3570	2060	1730	594	507	1450
12	464	540	2340	4700	1900	5490	3530	1790	1750	590	913	1370
13	446	493	2130	3660	1700	5790	3360	1820	1640	593	1230	1100
14	688	431	1920	3420	1600	5020	3600	1900	1460	620	865	1140
15	952	391	1650	3150	1700	4100	3670	1890	1320	678	761	1650
16	1320	391	1510	2870	1800	3490	3600	1920	1280	714	809	1630
17	1090	459	1480	2460	1600	3070	3500	1760	1210	1240	614	1430
18	1030	1080	1380	2090	1400	2960	3000	1560	1150	1380	523	1000
19	852	890	1260	2100	1300	2700	2690	1670	1110	1200	630	888
20	816	730	1180	1850	1400	2360	2360	1800	903	884	629	840
21	1060	736	1400	5230	1500	2310	2220	1850	862	1000	481	1110
22	992	779	1750	6200	1600	2740	2150	1980	917	968	451	4080
23	900	777	1530	5280	2000	2170	2050	2180	883	720	436	3500
24	888	943	1450	6410	17500	2230	1980	5170	731	720	463	3380
25	876	880	2050	17900	15000	2850	1860	6240	729	638	558	3910
26	753	817	1870	10700	7910	4260	1880	8600	730	605	550	2790
27	877	808	1720	11500	4750	3580	2580	7040	711	649	625	2220
28	978	816	1660	10200	7330	2960	4280	6350	740	649	611	1870
29	913	816	1590	8300	---	2670	4660	5810	952	684	560	2020
30	888	768	1400	5630	---	2620	3470	5450	1320	780	505	1770
31	783	---	1400	4790	---	2530	---	4720	---	660	395	---
TOTAL	23927	23659	52636	190230	99550	143820	87290	99400	46978	26199	18337	59363
MEAN	772	789	1698	6136	3555	4639	2910	3206	1566	845	592	1979
MAX	1320	1280	3890	17900	17500	9620	4660	8600	3970	1450	1230	4080
MIN	431	391	744	1850	1300	2170	1860	1560	711	590	395	367
CFSM	.87	.89	1.91	6.90	4.00	5.22	3.27	3.61	1.76	.95	.67	2.23
IN.	1.00	.99	2.20	7.96	4.17	6.02	3.65	4.16	1.97	1.10	.77	2.48

CAL YR 1978 TOTAL 754475 MEAN 2067 MAX 14400 MIN 305 CFSM 2.33 IN 31.57
WTR YR 1979 TOTAL 871391 MEAN 2387 MAX 17900 MIN 367 CFSM 2.69 IN 36.46

01451500 LITTLE LEHIGH CREEK NEAR ALLENTOWN, PA

LOCATION.--Lat 40°34'56", long 75°29'00", Lehigh County, Hydrologic Unit 02040106, on right bank at downstream side of bridge on Lehigh Parkway in Allentown, 0.8 mi (1.3 km) upstream from Cedar Creek, and 2.9 mi (4.7 km) upstream from mouth.

DRAINAGE AREA.--80.8 mi² (209.3 km²).

PERIOD OF RECORD.--October 1945 to current year. Prior to October 1946, published as "at Allentown".

REVISED RECORDS.--WDR PA-73: 1946(M), 1951(P), 1955(M), 1956(M), 1958(M), 1962(M), 1963(M), 1965(M), 1969(M), 1971(M).

GAGE.--Water-stage recorder and, since September 1958, masonry control. Datum of gage is 253.41 ft (77.239 m) NGVD of 1929.

REMARKS.--Records good. Occasional regulation at low flow by fish hatchery above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--34 years, 98.9 ft³/s (2.801 m³/s), 16.62 in/yr (422 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,800 ft³/s (334 m³/s) June 22, 1972, gage height, 11.80 ft (3.597 m), from rating curve extended above 980 ft³/s (27.8 m³/s) on basis of slope-area measurement of peak flow; minimum, 17 ft³/s (0.48 m³/s) Feb. 4, 1965, result of upstream shutoff; minimum gage height, 1.39 ft (0.424 m) June 17, 18, 22, 1949.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft³/s (12.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 2	1745	525	14.9	3.50	1.067
Jan. 8	1115	489	13.8	3.44	1.049
Jan. 22	0130	1,500	42.5	4.68	1.426
Jan. 25	0200	*9,890	280	*10.76	3.280
Feb. 24	2245	2,040	57.8	5.18	1.579
Feb. 26	0545	4,090	116	6.91	2.106
May 23	2300	567	16.1	3.57	1.088
Sept. 6	0845	806	22.8	3.92	1.195
Sept.22	0030	507	14.4	3.47	1.058

Minimum discharge, 50 ft³/s (1.42 m³/s) Oct. 29, 30, 31, Nov. 6-14; minimum gage height, 2.28 ft (0.695 m) Sept. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	51	68	118	179	272	132	127	137	92	86	59
2	70	51	60	346	166	244	132	121	140	90	92	59
3	70	51	58	293	159	217	141	121	141	87	82	68
4	70	51	77	166	156	192	150	127	137	89	79	63
5	73	51	86	138	147	232	178	118	129	92	75	70
6	93	50	68	129	140	285	147	116	124	88	73	370
7	58	50	62	144	141	228	132	113	121	81	74	125
8	53	50	64	406	138	195	129	110	117	79	73	90
9	53	50	189	252	135	175	153	108	114	79	72	83
10	53	50	144	172	127	178	202	105	113	77	77	81
11	51	51	88	150	125	236	153	103	120	77	80	79
12	51	50	79	135	130	182	144	103	117	76	122	77
13	53	51	77	138	125	165	141	108	109	75	109	76
14	60	51	73	159	120	180	192	113	105	93	82	85
15	58	53	70	135	120	165	175	108	103	86	77	94
16	55	53	60	127	115	150	156	104	102	80	74	78
17	60	57	66	121	110	155	147	100	100	95	71	76
18	57	98	64	118	105	160	141	107	99	166	74	74
19	55	66	62	110	100	155	135	129	97	123	78	73
20	55	58	64	115	100	147	132	135	95	89	72	71
21	53	57	93	720	105	144	129	112	95	92	70	137
22	53	55	79	698	115	141	127	109	102	84	69	296
23	53	57	78	236	140	138	127	177	118	80	67	142
24	53	64	73	1640	950	162	124	446	97	80	67	103
25	53	57	179	3650	1550	185	121	325	94	78	71	94
26	53	53	110	376	2740	153	129	255	92	76	68	89
27	57	55	86	280	555	138	206	185	90	76	66	85
28	57	57	75	252	320	135	178	167	90	74	65	83
29	51	57	73	221	---	138	144	155	110	139	63	91
30	51	73	70	206	---	135	132	147	93	147	63	83
31	51	---	73	189	---	132	---	144	---	94	61	---
TOTAL	1803	1678	2568	11940	9113	5514	4429	4498	3301	2836	2352	3058
MEAN	58.2	55.9	82.8	385	325	178	148	145	110	91.3	75.9	102
MAX	93	98	189	3650	2740	285	206	446	141	166	122	370
MIN	51	50	58	110	100	132	121	100	90	74	61	59
CFSM	.72	.69	1.03	4.77	4.02	2.20	1.83	1.80	1.36	1.13	.94	1.26
IN.	.83	.77	1.18	5.50	4.20	2.54	2.04	2.07	1.52	1.30	1.08	1.41

CAL YR 1978 TOTAL 50328 MEAN 138 MAX 2930 MIN 50 CFSM 1.71 IN 23.17
WTR YR 1979 TOTAL 53080 MEAN 145 MAX 3650 MIN 50 CFSM 1.80 IN 24.44

01451800 JORDAN CREEK NEAR SCHNECKSVILLE, PA

LOCATION.--Lat 40°39'42", long 75°37'38", Lehigh County, Hydrologic Unit 02040106, on left bank 54 ft (16.5 m) downstream from wooden covered bridge at Trexler-Lehigh County Game Preserve, 1.0 mi (1.6 km) downstream from Mill Creek, and 1.1 mi (1.8 km) southwest of Schnecksville.

DRAINAGE AREA.--53.0 mi² (137.3 km²).

PERIOD OF RECORD.--February 1966 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 400 ft (122 m), from topographic map. Prior to Oct. 2, 1973, nonrecording gage at bridge 54 ft (16.5 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years, 97.2 ft³/s (2.753 m³/s), 24.91 in/yr (633 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,100 ft³/s (201 m³/s) June 22, 1972, gage height, 12.32 ft (3.755 m), from floodmark, from rating curve extended above 680 ft³/s (19.3 m³/s) on basis of contracted-opening measurement of peak flow; minimum observed, 0.4 ft³/s (0.011 m³/s) July 26, 1966; minimum gage height observed, 1.74 ft (0.530 m) July 19, 26, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s (17.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 2	1945	1,310	37.1	5.99	1.826	Feb. 24	2330	2,430	68.8	7.63	2.326
Jan. 8	0800	1,100	31.2	5.61	1.710	Feb. 26	0515	3,150	89.2	8.52	2.597
Jan. 21	1615	2,490	70.5	7.70	2.347	May 24	1245	780	22.1	5.17	1.576
Jan. 24	2130	*4,760	135	*10.26	3.127	Sept. 6	1100	662	18.7	4.94	1.506
Feb. 24	0800	2,990	84.7	8.32	2.536	Sept. 22	0145	740	21.0	5.09	1.551

Minimum discharge, 12 ft³/s (0.34 m³/s) Nov. 14, 15, 27; minimum gage height, 2.62 ft (0.799 m) Nov. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	16	40	206	100	234	54	87	97	26	73	19
2	30	16	36	777	80	199	56	75	82	27	96	21
3	28	16	37	823	69	163	79	71	81	28	60	28
4	30	16	82	401	67	141	98	90	82	24	47	21
5	30	16	90	253	38	246	239	62	58	26	40	21
6	63	16	81	196	43	333	199	55	54	22	36	390
7	33	15	71	219	46	263	163	51	48	21	35	246
8	28	15	81	866	53	206	138	48	44	19	31	150
9	26	15	364	461	48	168	175	45	44	19	28	99
10	25	14	456	271	43	167	225	42	41	19	29	70
11	24	13	290	191	36	251	179	40	75	20	33	55
12	23	13	208	167	36	197	170	39	49	18	66	46
13	23	13	161	152	35	173	147	56	40	18	51	41
14	32	13	128	162	35	163	250	55	36	19	38	55
15	32	12	105	148	40	129	218	45	34	21	36	57
16	24	14	91	131	35	105	204	47	33	33	33	36
17	29	17	83	96	30	98	177	38	32	91	30	33
18	25	53	70	72	27	85	148	39	31	55	33	31
19	24	27	65	56	25	75	122	55	29	40	37	30
20	22	21	77	62	26	68	104	71	27	32	29	27
21	21	19	97	1400	28	61	89	51	27	30	27	136
22	20	18	71	581	30	58	78	49	29	28	26	552
23	20	19	59	221	50	50	67	118	33	27	25	339
24	19	38	65	1560	1550	67	59	606	27	33	25	216
25	19	26	299	1520	1390	86	56	599	25	27	25	151
26	19	22	221	415	1550	67	73	440	24	25	24	109
27	22	18	174	342	477	57	175	323	23	25	22	80
28	20	30	144	268	336	53	157	254	23	23	21	63
29	18	25	126	198	---	56	121	188	36	159	23	73
30	17	37	110	167	---	53	102	149	27	190	23	52
31	16	---	98	131	---	51	---	124	---	111	20	---
TOTAL	793	603	4080	12513	6323	4123	4122	4012	1291	1256	1122	3247
MEAN	25.6	20.1	132	404	226	133	137	129	43.0	40.5	36.2	108
MAX	63	53	456	1560	1550	333	250	606	97	190	96	552
MIN	16	12	36	56	25	51	54	38	23	18	20	19
CFSM	.48	.38	2.49	7.62	4.26	2.51	2.59	2.43	.81	.76	.68	2.04
IN.	.56	.42	2.86	8.78	4.44	2.89	2.89	2.82	.91	.88	.79	2.28

CAL YR 1978 TOTAL 37984 MEAN 104 MAX 2230 MIN 12 CFSM 1.96 IN 26.66
WTR YR 1979 TOTAL 43485 MEAN 119 MAX 1560 MIN 12 CFSM 2.25 IN 30.52

01452000 JORDAN CREEK AT ALLENTOWN, PA

LOCATION.--Lat 40°37'23", long 75°28'58", Lehigh County, Hydrologic Unit 02040106, on right bank 200 ft (60 m) upstream from bridge on State Highway 145, 0.5 mi (0.8 km) northwest of city limits of Allentown, and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--75.8 mi² (196.3 km²).

PERIOD OF RECORD.--October 1944 to current year.

REVISED RECORDS.--WDR PA-76-1: 1970(M), 1971.

GAGE.--Water-stage recorder and rubble masonry control, crest raised one foot (0.3 m) in August 1958 and further modified by filling in square notches on sides and notching center of dam at 17:1 slope in August 1976. Datum of gage is 259.82 ft (79.193 m) Pennsylvania Department of Transportation datum.

REMARKS.--Records good. Some regulation at low flow by mills above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--35 years, 114 ft³/s (3.228 m³/s), 20.40 in/yr (518 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,200 ft³/s (459 m³/s) June 23, 1972, gage height, 11.61 ft (3.539 m), from floodmark, from rating curve extended above 6,100 ft³/s (173 m³/s) on basis of slope-area measurement of peak flow; no flow on many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 23, 1942, reached a stage of approximately 7.1 ft (2.16 m) outside, from floodmarks 650 ft (200 m) downstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,300 ft³/s (36.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 2	Unknown	1,810	51.3	5.39	1.643
Jan. 8	Unknown	1,300	36.8	Unknown	
Jan. 21	Unknown	3,000	85.0	Unknown	
Jan. 25	Unknown	*6,000	170	Unknown	
Feb. 25	0315	2,970	84.1	6.12	1.865
Feb. 26	1030	3,980	113	6.63	2.021

Minimum discharge, 14 ft³/s (0.40 m³/s) Nov. 16, gage height, 2.34 ft (0.713 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	21	55	207	150	316	80	120	120	32	113	18
2	46	21	48	1000	130	247	76	107	110	31	115	16
3	40	21	48	1100	115	208	88	99	110	29	98	23
4	40	20	77	500	100	172	114	115	110	25	77	25
5	45	24	119	350	90	233	227	96	95	29	63	21
6	85	20	106	250	85	370	222	84	90	27	53	357
7	75	20	95	300	70	315	191	79	83	23	50	311
8	41	19	93	1100	67	239	165	73	73	20	42	189
9	37	19	340	600	64	193	168	68	66	18	37	138
10	35	18	549	400	55	179	266	60	65	17	35	109
11	33	18	343	300	51	268	211	57	84	16	43	91
12	32	15	248	200	46	216	200	53	86	17	75	75
13	30	15	195	170	46	192	179	62	64	16	95	65
14	33	14	161	200	45	177	259	80	55	24	62	65
15	31	14	130	170	45	153	255	60	50	23	54	97
16	37	14	113	140	46	122	230	65	47	27	47	61
17	37	17	101	110	40	121	211	54	43	77	40	50
18	37	51	87	90	34	111	178	58	42	65	40	44
19	32	40	76	75	34	100	152	70	38	63	55	42
20	31	27	66	90	35	91	134	90	34	37	43	38
21	30	24	112	1700	37	84	120	70	32	32	35	90
22	26	21	98	700	47	80	107	65	33	29	34	718
23	27	23	70	300	61	76	100	200	48	26	33	465
24	25	38	65	2000	1140	89	90	800	37	28	32	288
25	24	39	310	2100	1700	112	84	700	32	29	31	206
26	25	29	292	700	2150	99	91	500	28	25	30	163
27	27	25	253	400	611	85	160	400	27	24	26	133
28	26	27	169	300	482	80	202	300	26	22	22	115
29	25	32	136	250	---	79	153	250	46	100	25	120
30	22	47	128	200	---	80	133	200	38	265	23	99
31	22	---	130	170	---	79	---	150	---	153	21	---
TOTAL	1101	733	4815	16172	7576	4966	4854	5185	1806	1349	1549	4232
MEAN	35.5	24.4	155	522	271	160	162	167	60.2	43.5	50.0	141
MAX	85	51	549	2100	2150	370	266	800	120	265	115	718
MIN	22	14	48	75	34	76	76	53	26	16	21	16
CFSM	.47	.32	2.05	6.89	3.58	2.11	2.14	2.20	.79	.57	.66	1.86
IN.	.54	.36	2.36	7.94	3.72	2.44	2.38	2.54	.89	.66	.76	2.08

CAL YR 1978 TOTAL 48401 MEAN 133 MAX 2080 MIN 14 CFSM 1.76 IN 23.79
WTR YR 1979 TOTAL 54338 MEAN 149 MAX 2150 MIN 14 CFSM 1.97 IN 26.67

LEHIGH RIVER BASIN

01452500 MONOCACY CREEK AT BETHLEHEM, PA

LOCATION.--Lat 40°38'28", long 75°22'47", Northampton County, Hydrologic Unit 02040106, on right bank 40 ft (12 m) downstream from highway bridge at entrance to Monocacy Park at Bethlehem, and 2.1 mi (3.4 km) upstream from mouth.

DRAINAGE AREA.--44.5 mi² (115.3 km²).

PERIOD OF RECORD.--October 1948 to current year.

GAGE.--Water-stage recorder. Concrete control since July 17, 1969. Datum of gage is 247.24 ft (75.359 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to May 15, 1962, nonrecording gage at site 40 ft (12 m) upstream at same datum.

REMARKS.--Records fair. Some regulation at low flow by mill above station since April 1954. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--31 years, 52.9 ft³/s (1.498 m³/s), 16.13 in/yr (410 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,490 ft³/s (98.8 m³/s) January 25, 1979, gage height, 8.19 ft (2.496 m); minimum, 3.0 ft³/s (0.085 m³/s) January 9, 1966, gage height, 1.67 ft (0.509 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 10, 1945, reached a stage of 9.74 ft (2.969 m), from floodmarks, discharge, 5,200 ft³/s (147 m³/s), by slope-area measurement.

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 2	2145	319	9.03	3.50	1.067	Feb. 25	0345	1,310	37.1	5.52	1.682
Jan. 8	0930	390	11.0	3.70	1.128	Feb. 26	1015	2,180	61.7	6.72	2.048
Jan. 21	2215	1,160	32.9	5.27	1.606	July 18	0845	408	11.6	3.75	1.143
Jan. 25	0115	*3,490	98.8	*8.19	2.496						

Minimum discharge, 28 ft³/s (0.79 m³/s) Nov. 16, 17; minimum gage height, 2.23 ft (0.680 m) Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	36	35	85	101	132	79	81	81	43	52	36
2	47	36	34	203	88	116	81	83	77	46	51	35
3	46	39	33	247	83	112	90	79	75	44	47	36
4	47	39	41	153	81	101	96	81	75	43	47	36
5	49	39	46	117	75	107	114	79	75	44	46	37
6	75	39	44	115	70	134	112	73	70	43	51	114
7	52	37	43	105	73	123	103	79	66	42	47	62
8	49	37	48	307	70	114	96	68	61	43	46	52
9	44	37	115	191	72	105	107	62	61	42	44	47
10	43	36	140	132	70	107	123	59	61	40	44	43
11	44	36	115	107	68	137	114	59	62	40	44	40
12	43	35	96	91	70	116	118	55	61	40	54	40
13	43	35	83	87	70	112	112	59	57	39	51	39
14	49	35	74	89	66	118	139	59	55	83	44	40
15	49	32	66	81	66	112	125	57	54	55	43	44
16	43	30	59	73	66	101	118	54	51	72	43	39
17	44	30	55	68	61	103	118	52	51	70	40	37
18	43	44	54	67	59	105	109	52	47	157	42	37
19	43	35	52	57	55	99	96	57	46	85	44	37
20	44	33	51	61	54	87	90	59	46	73	40	36
21	43	33	71	545	59	85	83	55	44	68	39	73
22	43	33	62	331	64	85	83	58	46	64	39	206
23	43	33	55	141	79	85	80	68	49	61	37	142
24	40	36	54	739	696	90	78	154	46	59	37	105
25	39	32	83	1160	836	101	75	162	44	55	37	86
26	39	31	73	217	1050	92	80	168	44	54	37	77
27	39	30	69	173	214	88	140	140	43	52	36	70
28	37	31	58	152	154	86	118	123	46	51	36	64
29	36	31	54	130	---	88	94	105	49	68	36	70
30	36	35	52	116	---	83	85	96	44	66	36	59
31	35	---	53	105	---	77	---	90	---	54	36	---
TOTAL	1373	1045	1968	6245	4572	3201	3056	2526	1687	1796	1326	1839
MEAN	44.3	34.8	63.5	201	163	103	102	81.5	56.2	57.9	42.8	61.3
MAX	75	44	140	1160	1050	137	140	168	81	157	54	206
MIN	35	30	33	57	54	77	75	52	43	39	36	35
CFSM	1.00	.78	1.43	4.52	3.66	2.32	2.29	1.83	1.26	1.30	.96	1.38
IN.	1.15	.87	1.65	5.22	3.82	2.68	2.55	2.11	1.41	1.50	1.11	1.54

CAL YR 1978 TOTAL 28801 MEAN 78.9 MAX 1200 MIN 30 CFSM 1.77 IN 24.08
WTR YR 1979 TOTAL 30634 MEAN 83.9 MAX 1160 MIN 30 CFSM 1.89 IN 25.61

01453000 LEHIGH RIVER AT BETHLEHEM, PA

LOCATION.--Lat 40°36'55", long 75°22'45", Lehigh County, Hydrologic Unit 02040106, on left bank 110 ft (34 m) upstream from New Street Bridge at Bethlehem, and 1,800 ft (549 m) upstream from Monocacy Creek. Records include flow of Monocacy Creek.

DRAINAGE AREA.--1,279 mi² (3,313 km²) includes that of Monocacy Creek. At site used prior to Oct. 1, 1928, 1,229 mi² (3,183 km²).

PERIOD OF RECORD.--Sept. 1902 to February 1905, April 1909 to current year. Monthly discharge only for some periods, published in WSP 1302. Published as "at South Bethlehem" prior to Oct. 1913.

REVISED RECORDS.--WSP 261: 1903-5. WSP 321: 1910-11. WSP 1051: Drainage area. WSP 1141: 1929-34(M). WSP 1302: 1914(M), 1916(M), 1918, 1921, 1927-28. WSP 1432: 1903, 1919(M), 1920-21, 1929, 1933.

GAGE.--Water-stage recorder. Datum of gage is 210.94 ft (64.295 m) National Geodetic Vertical Datum of 1929. Prior to October 1928, nonrecording gage at New Street Bridge 120 ft (37 m) downstream at same datum. Oct. 1, 1928, to Sept. 30, 1962, water-stage recorder at site 4,250 ft (1,295 m) downstream at datum 2.49 ft (0.759 m) lower. Oct. 1, 1963 to Dec. 14, 1975, water-stage recorder at site 40 ft (12 m) downstream at same datum.

REMARKS.--Records fair. Flow regulated by Wild Creek Reservoir (station 01449700) since Janaury 1941, Penn Forest Reservoir (station 01449400) since October 1958, Francis E. Walter Reservoir (station 01447780) since February 1961, and Beltzville Lake (station 01449790) since February 1971. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--72 years (1902-4, 1909 to current year), 2,347 ft³/s (66.47 m³/s), 24.92 in/yr (633 mm/yr), adjusted for diversion 1902-04, 1909-42 and, for recirculated water, October 1, 1959 to September 30, 1962.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 92,000 ft³/s (2,610 m³/s) May 23, 1942, gage height, about 25.9 ft (7.89 m), from floodmark, present site and datum, from rating curve extended above 48,000 ft³/s (1,360 m³/s); minimum, 125 ft³/s (3.54 m³/s) June 28, 1965, gage height, 0.94 ft (0.287 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 28, 1902, reached a stage of 24.9 ft (7.59 m), from floodmark, present site and datum, discharge, about 88,000 ft³/s (2,490 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 51,700 ft³/s (1,460 m³/s) Jan. 25, gage height, 17.12 ft (5.218 m); minimum discharge, 428 ft³/s (12.1 m³/s) Aug. 22; minimum gage height, 1.32 ft (0.402 m) Nov. 15, Aug. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080	975	1050	1960	3900	9040	2680	3600	4050	1770	1100	480
2	901	1310	1010	7950	3160	8130	2820	3440	3660	1650	1160	467
3	798	1340	1010	12200	2670	5820	3080	3150	3290	1410	1060	657
4	826	1530	1270	8970	2340	5120	3500	3230	3170	1160	945	783
5	886	1510	1830	8650	2070	6610	4100	3340	3090	1140	797	1000
6	1270	1510	1830	7450	1810	10700	4000	2960	2980	1140	741	6340
7	1140	1420	1680	5150	1960	9890	3500	2650	2840	1190	783	5750
8	979	812	1630	12100	1980	10600	3300	2500	2690	1300	713	5470
9	1040	788	3800	9460	1860	9380	3500	2170	2230	1000	657	4880
10	994	727	4990	7000	1680	7050	4500	2210	2090	930	685	3740
11	963	727	3700	5790	1660	7140	4300	2410	2250	812	713	2190
12	886	699	2750	4970	1580	6360	4100	2230	2260	797	1310	1670
13	812	699	2280	4110	1430	6460	4000	2230	2090	826	1730	1540
14	994	643	2090	3800	1350	6150	4300	2410	1910	1200	1360	1440
15	1250	559	1830	3380	1430	4740	5000	2320	1750	1050	1100	2120
16	1560	573	1710	2940	1480	3870	4500	2320	1650	1080	1060	1960
17	1550	657	1650	2520	1310	3480	4000	2190	1580	2050	1000	1810
18	1360	1220	1550	2050	1220	3340	3500	2000	1510	2250	856	1410
19	1220	1200	1450	1800	1170	3190	3250	2170	1440	2100	906	1350
20	1100	948	1360	1800	1270	2840	3000	2340	1300	1490	990	1270
21	1170	886	1610	10100	1350	2770	2800	2260	1110	1300	769	1750
22	1380	948	1810	11300	1450	2690	2600	2350	1230	1540	601	6390
23	1200	963	1650	6130	1560	2610	2500	2770	1330	1140	629	4970
24	1160	1130	1580	12300	7770	2750	2400	6830	1050	1050	615	4330
25	1140	1100	2450	32900	13700	3340	2300	10200	1000	960	727	4460
26	1100	994	2190	12700	18800	4200	2300	10600	1000	930	826	3600
27	1080	944	1960	12900	7590	4060	3250	8440	975	900	727	2880
28	1230	1020	1730	11500	8130	3340	4680	7470	990	930	870	2390
29	1200	1020	1530	9700	---	3070	5440	6680	1350	1460	769	2560
30	1160	1070	1510	6100	---	3010	4330	6270	1480	1730	755	2320
31	1070	---	1550	5170	---	2960	---	5510	---	1280	573	---
TOTAL	34499	29968	60040	244850	97680	164730	107850	121250	60145	39645	27521	81977
MEAN	1113	999	1937	7898	3489	5314	3595	3911	2005	1279	888	2733
MAX	1560	1530	4990	32900	18800	10700	5440	10600	4050	2250	1730	6390
MIN	798	559	1010	1800	1170	2610	2300	2000	975	797	573	467
CFSM	.87	.78	1.51	6.18	2.73	4.16	2.81	3.06	1.57	1.00	.69	2.14
IN.	1.00	.87	1.75	7.12	2.84	4.79	3.14	3.53	1.75	1.15	.80	2.38

CAL YR 1978 TOTAL 1023645 MEAN 2805 MAX 20300 MIN 559 CFSM 2.19 IN 29.77
WTR YR 1979 TOTAL 1070155 MEAN 2932 MAX 32900 MIN 467 CFSM 2.29 IN 31.13

LEHIGH RIVER BASIN

01454700 LEHIGH RIVER AT GLENDON, PA

LOCATION.--Lat 40°40'09", long 75°14'12", Northampton County, Hydrologic Unit 02040106, on right bank 140 ft (43 m) upstream from highway bridge in Hugh Moore Parkway at Glendon, 1.9 mi (3.1 km) upstream from mouth, and 2.0 mi (3.2 km) southwest of Easton.

DRAINAGE AREA.--1,359 mi^2 (3,520 km^2).

PERIOD OF RECORD.--October 1966 to current year.

REVISED RECORDS.--WDR PA-72: 1971(M).

GAGE.--Water-stage recorder. Datum of gage is 164.30 ft (50.079 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Francis E. Walter Reservoir (station 01447780), Penn Forest Reservoir (station 01449400), and Wild Creek Reservoir (station 01449700) and since February 1971, Beltzville Lake (station 01449790) about 60 mi (97 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years, 3,054 ft^3/s (86.49 m^3/s), 30.52 in/yr (775 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,600 ft^3/s (1,720 m^3/s) June 23, 1972, gage height, 24.86 ft (7.577 m), from rating curve extended above 36,000 ft^3/s (1,020 m^3/s); minimum, 526 ft^3/s (14.9 m^3/s) Oct. 1, 1966, gage height, 6.59 ft (2.009 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 48,800 ft^3/s (1,380 m^3/s) Jan. 25, gage height, 22.44 ft (6.840 m); minimum, 781 ft^3/s (22.1 m^3/s) Nov. 15, gage height, 6.89 ft (2.100 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1240	1170	1330	2600	4900	9410	3620	3950	5240	1930	1360	845
2	1090	1360	1290	7540	4500	8590	3580	3720	3980	1860	1430	833
3	980	1460	1270	12400	4100	6400	3780	3840	3580	1650	1350	902
4	990	1580	1500	9090	3650	5750	3940	3490	3420	1430	1250	1070
5	1060	1590	2300	6900	3300	6700	4680	3580	3330	1400	1120	1230
6	1480	1590	2370	7940	2780	10800	4560	3240	3280	1370	1080	6270
7	1350	1570	2180	5980	3110	10200	4270	2930	3090	1400	1100	6070
8	1150	1100	2100	12600	3140	10700	3940	2750	2950	1600	1040	5460
9	1230	1030	4460	9770	2970	9620	4150	2470	2520	1270	986	5010
10	1190	990	5690	7610	2620	7570	5180	2450	2340	1220	1010	3940
11	1150	980	4510	6560	2540	7610	4940	2650	2580	1120	1050	2490
12	1070	961	3530	5770	2400	6790	4900	2490	2550	1120	1600	1860
13	970	961	3030	5050	2210	6790	4760	2480	2360	1130	1980	1770
14	1160	907	2770	4710	2000	6580	5220	2690	2180	1710	1640	1660
15	1370	826	2420	4280	2160	5520	5310	2560	2030	1400	1360	2260
16	1610	835	2210	3800	2280	4880	5090	2530	1900	1390	1310	2100
17	1680	880	2110	3450	2030	4470	4980	2440	1800	2300	1300	2000
18	1490	1480	1990	2900	1790	4330	4540	2250	1750	2710	1160	1670
19	1390	1500	1860	2430	1820	4110	4110	2430	1670	2500	1200	1530
20	1270	1230	1730	2480	1930	3620	3670	2600	1570	1800	1250	1530
21	1290	1140	2070	10800	2040	3480	3010	2500	1380	1560	1110	1910
22	1520	1190	2340	12100	2230	3380	3240	2590	1480	1770	959	6830
23	1360	1200	2120	6930	2400	3260	3140	2980	1630	1450	959	5300
24	1310	1390	2010	11300	8630	3420	2990	7200	1360	1350	944	4540
25	1300	1390	3240	32200	15100	4390	2840	10300	1300	1270	1020	4600
26	1270	1260	2980	12000	20500	4990	2030	10800	1300	1240	1140	3910
27	1270	1260	2630	12300	8470	4990	4060	8820	1260	1190	1020	3140
28	1360	1280	2300	11000	8320	4350	5500	7810	1290	1220	1150	2660
29	1340	1280	1990	9650	---	3930	5700	7010	1600	1940	1060	2740
30	1310	1400	1980	6740	---	3830	4730	6620	1640	2090	1060	2590
31	1270	---	2010	5900	---	3720	---	5860	---	1560	933	---
TOTAL	39520	36870	76320	255380	123920	184180	127580	129630	68320	48850	36933	88890
MEAN	1275	1229	2462	8238	4426	5941	4253	4182	2277	1576	1191	2963
MAX	1680	1590	5690	32200	20500	10800	5700	10800	5240	2710	1980	6830
MIN	970	826	1270	2430	1790	3260	2030	2250	1260	1120	933	833
CFSM	.94	.90	1.81	6.06	3.26	4.37	3.13	3.08	1.68	1.16	.88	2.18
IN.	1.08	1.01	2.09	6.99	3.39	5.04	3.49	3.55	1.87	1.34	1.01	2.43

CAL YR 1978 TOTAL 1093393 MEAN 2996 MAX 19600 MIN 817 CFSM 2.21 IN 29.93
WTR YR 1979 TOTAL 1216383 MEAN 3333 MAX 32200 MIN 826 CFSM 2.45 IN 33.30

01454720 LEHIGH RIVER AT EASTON, PA

LOCATION.--Lat 40°41'12", long 75°12'32", Northampton County, Hydrologic Unit 02040106, at Third Street Bridge, Easton, U.S. Highway 611.

DRAINAGE AREA.--1,360 mi² (3,530 km²).

PERIOD OF RECORD.--October 1961 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: October 1972 to September 1974, October 1975 to current year.
WATER TEMPERATURES: October 1961 to current year.
DISSOLVED OXYGEN: June 1966 to current year.

REMARKS.--Interruptions in record due to malfunctions of the instrument and clogging of the intake.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 581 micromhos Aug. 19, 1963; minimum, 70 micromhos Nov. 14, 1970.
pH: Maximum, 8.3 July 24, 1978; minimum, 6.0 Mar. 16, 1978.
WATER TEMPERATURES: Maximum, 30.5°C July 29, 1970; minimum, freezing point on many days during winter months.
DISSOLVED OXYGEN: Maximum, 15.5 mg/L Jan. 11, 1978; minimum, 0.0 mg/L Aug. 4, 1966.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), OCTOBER 1978 TO JANUARY 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	416	396	407	389	305	333	327	309	316	242	228	236
2	400	329	364	398	376	384	324	315	318	245	166	210
3	366	343	353	400	360	376	318	310	314	172	157	164
4	428	368	389	373	360	367	312	297	302	174	139	159
5	415	391	404	364	349	357	296	255	282	141	128	134
6	407	360	393	356	325	338	256	234	243	162	140	151
7	367	346	353	341	322	331	238	222	229	218	151	173
8	356	339	344	355	336	347	241	224	231	221	152	179
9	360	346	354	379	304	350	241	202	221	153	146	149
10	356	337	342	352	285	323	213	171	182	152	144	149
11	399	345	356	382	308	338	182	173	176	152	145	149
12	362	355	357	386	301	344	214	176	195	160	149	154
13	372	363	367	387	316	348	217	205	212	265	159	176
14	401	373	388	385	328	349	220	212	216	259	218	236
15	404	355	382	385	344	365	228	220	224	237	204	213
16	354	303	328	402	372	385	236	220	231	206	193	198
17	301	277	289	408	366	386	248	234	241	202	191	197
18	292	280	287	410	377	401	243	231	235	214	200	208
19	302	286	292	375	293	328	246	228	237	238	216	230
20	321	302	308	297	275	284	287	244	258	244	228	236
21	334	316	323	304	278	287	284	259	269	386	214	291
22	334	305	324	325	306	318	282	245	260	220	188	203
23	304	279	286	320	310	316	245	235	240	215	195	203
24	306	284	291	311	291	302	243	216	235	229	185	205
25	314	298	306	291	267	275	233	217	226	---	---	---
26	320	313	315	274	266	270	223	216	220	---	---	---
27	332	313	321	285	270	277	227	221	224	---	---	---
28	339	327	333	302	281	290	250	225	235	---	---	---
29	327	299	311	337	302	318	246	240	244	---	---	---
30	299	286	291	340	310	326	252	243	248	---	---	---
31	305	284	289	---	---	---	250	241	246	---	---	---
MONTH	428	277	337	410	266	334	327	171	242	386	128	192

01454720 LEHIGH RIVER AT EASTON, PA--Continued

PH (UNITS), OCTOBER 1978 TO JANUARY 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.2	7.1	7.1	7.3	7.0	7.2	7.2	6.9	7.2	7.2	7.1	7.2
2	7.2	7.1	7.1	7.4	7.2	7.3	7.3	7.2	7.2	7.2	7.0	7.1
3	7.2	7.0	7.1	7.3	7.3	7.3	7.2	7.2	7.2	7.0	6.9	6.9
4	7.1	7.0	7.0	7.3	7.2	7.2	7.2	7.2	7.2	7.0	6.8	6.9
5	7.1	6.9	7.0	7.2	7.1	7.2	7.2	7.1	7.1	6.8	6.7	6.8
6	7.1	7.0	7.1	7.2	7.1	7.1	7.1	7.0	7.0	7.0	6.8	6.9
7	7.1	7.0	7.1	7.1	7.1	7.1	7.1	7.0	7.0	7.0	6.9	6.9
8	7.1	7.0	7.1	7.2	7.1	7.1	7.1	7.0	7.1	7.0	6.8	6.9
9	7.2	7.0	7.1	7.2	7.2	7.2	7.1	7.0	7.0	6.9	6.8	6.9
10	7.2	7.1	7.1	---	---	---	7.0	7.0	7.0	6.9	6.9	6.9
11	7.1	7.0	7.1	---	---	---	7.0	7.0	7.0	7.0	6.9	6.9
12	7.2	7.0	7.1	---	---	---	7.1	7.0	7.1	7.0	6.8	6.9
13	7.2	7.0	7.1	---	---	---	7.1	7.1	7.1	7.0	6.9	6.9
14	7.1	7.0	7.1	7.3	7.1	7.2	7.2	7.1	7.1	7.1	7.0	7.0
15	7.1	7.0	7.1	7.3	7.1	7.2	7.2	7.1	7.1	7.1	7.0	7.1
16	7.2	7.0	7.1	7.2	6.9	7.1	7.2	7.1	7.2	7.1	7.1	7.1
17	7.1	7.0	7.0	7.2	7.1	7.2	7.2	7.1	7.2	7.1	7.1	7.1
18	7.1	6.9	7.0	7.2	7.1	7.2	7.2	7.0	7.2	7.2	7.1	7.1
19	7.1	7.0	7.0	7.1	7.1	7.1	7.2	7.2	7.2	7.2	7.0	7.2
20	7.1	7.0	7.0	7.1	7.1	7.1	7.2	7.2	7.2	7.2	7.2	7.2
21	7.2	7.0	7.1	7.1	7.0	7.1	7.2	7.2	7.2	7.2	7.0	7.1
22	7.2	7.1	7.1	7.1	7.0	7.1	7.2	7.2	7.2	7.1	7.0	7.0
23	7.1	7.0	7.1	7.1	7.1	7.1	7.2	7.1	7.2	7.0	7.0	7.0
24	7.1	7.0	7.1	7.1	7.1	7.1	7.2	7.1	7.2	7.1	7.0	7.0
25	7.2	7.0	7.1	7.1	7.1	7.1	7.2	7.1	7.2	---	---	---
26	7.1	7.0	7.0	7.1	7.0	7.1	7.2	7.1	7.1	---	---	---
27	7.1	7.0	7.1	7.2	6.9	7.1	7.2	7.1	7.1	---	---	---
28	7.2	7.0	7.1	7.2	7.1	7.2	7.2	7.1	7.2	---	---	---
29	7.2	7.1	7.1	7.2	7.2	7.2	7.2	7.2	7.2	---	---	---
30	7.2	7.0	7.1	7.2	7.2	7.2	7.2	7.2	7.2	---	---	---
31	8.2	7.1	7.2	---	---	---	7.2	7.2	7.2	---	---	---
MONTH	8.2	6.9	7.1	7.4	6.9	7.2	7.3	6.9	7.1	7.2	6.7	7.0

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO JANUARY 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.0	18.0	18.5	15.5	13.0	14.0	8.0	7.0	7.5	6.5	5.0	5.5
2	19.5	18.0	18.5	16.0	14.5	15.5	7.5	7.0	7.5	8.0	6.5	7.5
3	19.0	17.5	18.5	16.0	15.0	15.5	7.5	7.0	7.5	7.0	4.5	5.5
4	18.5	18.0	18.0	15.5	15.0	15.5	9.0	7.5	8.0	4.5	2.0	3.0
5	18.0	18.0	18.0	16.0	15.0	15.5	9.0	8.0	8.5	2.5	2.0	2.5
6	19.0	18.0	18.5	17.0	15.5	16.0	8.5	8.0	8.0	3.5	2.5	3.0
7	18.0	17.0	17.5	17.0	16.5	16.5	8.0	7.5	7.5	4.0	3.5	3.5
8	17.0	15.5	16.5	17.5	17.0	17.5	8.5	7.5	8.0	4.0	4.0	4.0
9	16.0	15.0	15.5	19.5	17.0	18.0	9.0	8.5	8.5	4.0	3.0	3.5
10	16.0	14.5	15.0	20.5	17.5	18.5	8.5	5.5	7.0	3.0	2.5	2.5
11	16.5	14.5	15.5	---	---	---	5.0	4.5	4.5	2.5	2.5	2.5
12	17.5	15.5	16.5	---	---	---	5.0	4.5	4.5	2.5	2.0	2.0
13	18.5	16.5	17.5	---	---	---	5.5	5.0	5.0	3.0	2.0	2.0
14	18.5	18.0	18.0	13.0	12.5	13.0	6.0	5.5	5.5	4.0	3.0	3.5
15	18.0	16.0	17.0	14.0	13.0	13.5	6.0	5.5	5.5	4.0	3.0	3.5
16	16.0	14.5	15.0	14.0	13.5	14.0	6.0	5.5	5.5	3.0	3.0	3.0
17	14.5	14.0	14.0	13.5	13.0	13.0	6.5	6.0	6.0	3.0	2.5	3.0
18	14.0	13.5	13.5	14.0	13.5	13.5	6.0	5.5	5.5	3.0	2.5	3.0
19	14.0	13.5	14.0	14.0	12.0	13.0	5.5	5.0	5.0	2.5	2.0	2.0
20	14.0	14.0	14.0	12.5	11.5	12.0	5.0	4.5	4.5	2.5	2.0	2.5
21	15.0	13.5	14.0	11.5	10.5	11.0	5.5	4.5	5.0	3.0	2.0	2.5
22	15.0	14.0	14.5	10.5	9.5	10.0	5.0	5.0	5.0	4.0	3.0	3.5
23	15.5	14.5	15.0	9.5	9.0	9.0	5.5	5.0	5.0	5.0	4.0	4.5
24	15.5	14.5	15.0	10.0	9.0	9.5	5.0	4.5	5.0	5.0	4.5	5.0
25	15.0	14.0	14.5	9.5	9.0	9.5	5.0	4.0	5.0	---	---	---
26	14.5	13.5	14.5	9.0	8.0	8.5	4.5	4.0	4.5	---	---	---
27	15.0	14.5	14.5	8.0	6.5	7.0	5.0	4.5	4.5	---	---	---
28	15.0	14.0	14.0	6.5	6.0	6.5	4.5	4.0	4.0	---	---	---
29	14.5	13.5	14.0	6.5	6.0	6.5	4.0	3.5	4.0	---	---	---
30	13.5	13.0	13.5	7.0	6.5	7.0	4.0	3.5	4.0	---	---	---
31	14.0	13.0	13.0	---	---	---	5.0	4.0	4.5	---	---	---
MONTH	19.5	13.0	15.5	20.5	6.0	12.5	9.0	3.5	6.0	8.0	2.0	3.5

LEHIGH RIVER BASIN

01454720 LEHIGH RIVER AT EASTON, PA--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, OCTOBER 1978 TO JANUARY 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.0	7.1	7.5	9.5	8.2	9.2	11.0	10.4	10.6	---	---	---
2	8.3	7.3	7.7	9.5	8.5	9.0	11.2	10.5	10.8	---	---	---
3	8.2	7.1	7.5	---	---	---	10.9	10.6	10.7	---	---	---
4	7.5	6.6	7.1	---	---	---	10.5	9.7	10.4	14.5	14.3	14.4
5	7.6	6.6	7.0	---	---	---	10.3	9.6	9.9	14.8	13.4	14.3
6	7.8	6.9	7.3	---	---	---	10.4	10.0	10.2	13.3	11.5	12.3
7	8.1	7.3	7.7	---	---	---	10.6	10.0	10.4	11.9	10.4	11.3
8	8.5	7.6	8.0	---	---	---	10.8	10.0	10.4	13.1	9.9	11.8
9	9.3	8.0	8.6	8.4	7.9	8.3	10.6	9.9	10.3	13.0	12.4	12.8
10	9.3	8.5	8.9	8.5	7.8	8.3	11.1	9.7	10.7	12.9	12.6	12.8
11	9.1	7.6	8.5	8.4	7.8	8.2	11.3	11.0	11.1	12.6	12.4	12.6
12	8.7	8.0	8.3	8.5	8.1	8.3	12.5	10.9	11.7	13.1	12.4	12.6
13	8.4	7.5	7.8	8.6	8.3	8.4	12.1	11.3	11.7	12.9	12.1	12.6
14	7.6	6.9	7.2	8.5	7.5	8.2	11.4	11.0	11.3	12.1	11.3	11.7
15	8.4	6.9	7.5	8.8	7.2	8.1	11.5	10.9	11.2	12.5	11.7	12.0
16	9.3	7.9	8.6	8.1	7.5	7.7	11.3	10.7	11.0	12.6	12.5	12.5
17	9.6	8.9	9.2	---	---	---	11.7	9.8	10.5	12.6	12.4	12.5
18	9.7	8.5	9.2	---	---	---	11.9	9.7	10.8	12.4	12.2	12.3
19	9.5	8.9	9.2	---	---	---	---	---	---	12.7	12.3	12.4
20	9.2	8.7	8.9	---	---	---	---	---	---	12.4	11.9	12.2
21	9.4	8.6	8.9	---	---	---	---	---	---	12.1	8.1	10.6
22	9.6	8.7	9.1	---	---	---	---	---	---	12.6	8.1	11.8
23	9.5	8.7	9.1	---	---	---	---	---	---	12.5	9.7	11.6
24	9.3	8.6	8.8	---	---	---	---	---	---	---	---	---
25	9.6	8.4	8.9	---	---	---	---	---	---	---	---	---
26	9.1	8.5	8.9	---	---	---	---	---	---	---	---	---
27	9.1	8.3	8.6	10.9	10.3	10.7	---	---	---	---	---	---
28	9.4	8.2	8.8	11.3	10.6	10.9	---	---	---	---	---	---
29	9.8	8.7	9.2	11.4	10.7	11.0	---	---	---	---	---	---
30	10.3	9.0	9.6	11.2	10.7	10.9	---	---	---	---	---	---
31	10.2	9.2	9.6	---	---	---	---	---	---	---	---	---
MONTH	10.3	6.6	8.4	11.4	7.2	9.1	12.5	9.6	10.8	14.8	8.1	12.4

LAKE AND RESERVOIRS IN LEHIGH RIVER BASIN

01447780 FRANCIS E. WALTER RESERVOIR (formerly published as Bear Creek Reservoir).--Lat 41°06'45", long 75°43'15", Luzerne County, Hydrologic Unit 02040106, at dam on Lehigh River, 2,200 ft (670 m) downstream from Bear Creek and 5 mi (8 km) northwest of White Haven. DRAINAGE AREA, 289 mi^2 (749 km^2). PERIOD OF RECORD, February 1961 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earthfill embankment covered with a rock shell, with concrete spillway at elevation 1,450.0 ft (441.96 m). Storage began Feb. 17, 1961; water in reservoir first reached conservation pool elevation in June 1961. Total capacity at elevation 1,450.0 ft (441.96 m) is 110,700 acre-ft (136 hm^3) of which 108,700 acre-ft (134 hm^3) is controlled storage above elevation 1,300.0 ft (396.24 m), conservation pool. Dead storage is 2,000 acre-ft (2.47 hm^3). Reservoir is used for flood control and recreation. Flow regulated by three gates and low-flow by-pass system. Records furnished by the Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 42,600 acre-ft (52.5 hm^3) June 26, 1972, elevation, 1,398.20 ft (426.171 m); minimum (after establishment of conservation pool), 1,390 acre-ft (1.71 hm^3) Dec. 4, 1977, elevation, 1,293.70 ft (394.320 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 19,630 acre-ft (24.2 hm^3) Jan. 26, elevation, 1,366.83 ft (416.610 m); minimum, 1,550 acre-ft (1.91 hm^3) Sept. 10, elevation, 1,295.60 ft (394.899 m).

01449400 PENN FOREST RESERVOIR.--Lat 40°55'45", long 75°33'45", Carbon County, Hydrologic Unit 02040106, at dam on Wild Creek, 0.7 mi (1.1 km) upstream from Hatchery, 2.6 mi (4.2 km) upstream from Wild Creek Dam, 4.4 mi (7.1 km) upstream from mouth, and 10 mi (16 km) northeast of Palmerton. DRAINAGE AREA, 16.5 mi^2 (42.7 km^2). PERIOD OF RECORD, October 1958 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city of Bethlehem).

Reservoir formed by an earthfill dam, with ungated concrete spillway at elevation 1,000.00 ft (304.800 m). Storage began in October 1958. Capacity at elevation 1,000.00 ft (304.800 m) is 19,980 acre-ft (24.6 hm^3). Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is done by valves on pipe through dam. Records furnished by city of Bethlehem. Figures given herein include diversion, since October 1969, from Tunkhannock Creek basin into Wild Creek basin.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 20,520 acre-ft (25.3 hm^3) Mar. 28, 1978, elevation, 1,000.92 ft (305.080 m); minimum, 176 acre-ft (0.217 hm^3) Oct 6, 1965, elevation, 902.40 ft (275.052 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 20,420 acre-ft (25.2 hm^3) Mar. 7, elevation, 1,000.75 ft (305.029 m); minimum, 13,050 acre-ft (16.1 hm^3) Sept. 30, elevation, 983.09 ft (299.646 m).

01449700 WILD CREEK RESERVOIR.--Lat 40°53'50", long 75°33'50", Carbon County, Hydrologic Unit 02040106, at dam on Wild Creek, 1.6 mi (2.6 km) upstream from mouth, 2.4 mi (3.9 km) south of Hatchery, and 7.5 mi (12 km) northeast of Palmerton. DRAINAGE AREA, 22.2 mi^2 (57.5 km^2). PERIOD OF RECORD, January 1941 to current year. Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city of Bethlehem).

Reservoir formed by earthfill dam, with concrete ungated spillway at elevation 820.00 ft (249.936 m). Storage began January 27, 1941; water in reservoir first reached minimum pool elevation in February 1941. Total capacity at elevation 820.00 ft (249.936 m) is 12,500 acre-ft (15.4 hm^3) of which 12,000 acre-ft (15 hm^3) is controlled storage. Reservoir is used for municipal water supply. Figures given herein represent usable contents. Regulation is accomplished by valves on pipe through dam. Records furnished by city of Bethlehem. Since October 1969 the basin upstream has received diversion from Tunkhannock Creek basin.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 12,880 acre-ft (15.9 hm^3) May 23, 1942, elevation, 822.93 ft (250.829 m); minimum (after first filling), 2,680 acre-ft (3.30 hm^3) Nov. 15, 1966, elevation, 774.10 ft (235.946 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 12,240 acre-ft (15.1 hm^3) Mar. 7, elevation, 820.81 ft (250.183 m); minimum, 11,540 acre-ft (14.2 hm^3) Oct. 1, elevation, 818.03 ft (249.336 m).

01449790 BELTZVILLE LAKE.--Lat 40°50'56", long 75°38'19", Carbon County, Hydrologic Unit 02040106, at dam on Pohopoco Creek, 0.45 mi (0.72 km) upstream from gaging station on Pohopoco Creek, 0.55 mi (0.88 km) upstream from Sawmill Run and 2.3 mi (3.7 km) northeast of Parryville. DRAINAGE AREA, 96.3 mi^2 (249.4 km^2). PERIOD OF RECORD, February 1971 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungated, partially lined spillway at elevation 651.00 ft (198.425 m). Storage began Feb. 8, 1971. Capacity at elevation 651.00 ft (198.425 m) is 68,300 acre-ft (84.2 hm^3). Ordinary minimum (conservation) pool elevation 628.00 ft (191.414 m), capacity, 41,250 acre-ft (50.9 hm^3). Dead storage is 1,390 acre-ft (1.71 hm^3). Reservoir is used for recreation, flood control, low-flow augmentation and water supply. Figures given herein represent total contents. Regulation is accomplished by a multi-level water-quality outlet system and two flood-control gates. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 49,730 acre-ft (61.3 hm^3) Jan. 29, 1976, elevation, 636.30 ft (193.444 m); minimum (after first filling), 30,500 acre-ft (37.1 hm^3) Oct. 15, 1971, elevation, 614.60 ft (187.330 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 45,980 acre-ft (56.7 hm^3) Jan. 26, elevation, 632.80 ft (192.877 m); minimum, 34,090 acre-ft (42.0 hm^3) Nov. 14, elevation, 619.90 ft (188.946 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01447780 Francis E. Walter Reservoir			01449400 Penn Forest Reservoir		
Sept. 30	1,298.44	1,830	--	994.26	17,420	--
Oct. 31	1,300.75	2,080	+ 4.1	990.44	15,820	- 26.0
Nov. 30	1,301.77	2,180	+ 1.7	987.32	14,610	- 20.3
Dec. 31	1,299.81	1,980	- 3.3	988.63	15,110	+ 8.1
CAL YR 1978	--	--	- 0.2	--	--	- 7.0
Jan. 31	1,306.60	2,690	+ 11.5	1,000.46	20,250	+ 83.6
Feb. 28	1,335.65	7,690	+ 90.0	1,000.43	20,230	- 0.4
Mar. 31	1,299.99	2,000	- 92.5	1,000.25	20,120	- 1.8
Apr. 30	1,300.67	2,070	+ 1.2	1,000.29	20,150	+ 0.5
May 31	1,303.64	2,360	+ 4.7	1,000.36	20,190	+ 0.7
June 30	1,305.41	2,560	+ 3.4	999.51	19,760	- 7.2
July 31	1,299.74	1,970	- 9.6	991.15	16,120	- 59.2
Aug. 31	1,300.30	2,030	+ 1.0	986.20	14,180	- 31.5
Sept. 30	1,304.96	2,510	+ 8.1	983.09	13,050	- 19.0
WTR YR 1979	--	--	+ 0.9	--	--	- 6.0
	01449700 Wild Creek Reservoir			01449790 Beltzville Lake		
Sept. 30	818.02	11,540	--	627.28	40,570	--
Oct. 31	818.50	11,670	+ 2.1	626.53	39,850	- 11.7
Nov. 30	818.23	11,600	- 1.2	626.20	39,540	- 5.2
Dec. 31	818.21	11,590	- 0.2	625.82	39,190	- 5.7
CAL YR 1978	--	--	- 0.7	--	--	- 1.9
Jan. 31	820.42	12,130	+ 8.8	626.87	40,180	+ 16.1
Feb. 28	820.42	12,130	0	630.33	43,530	+ 60.3
Mar. 31	820.22	12,070	- 1.0	626.55	39,870	- 59.5
Apr. 30	820.34	12,100	+ 0.5	628.71	41,920	+ 34.4
May 31	820.41	12,120	+ 0.3	629.00	42,200	+ 4.5
June 30	820.12	12,040	- 1.3	627.77	41,030	- 19.7
July 31	820.36	12,100	+ 1.0	628.20	41,440	+ 6.7
Aug. 31	818.96	11,790	- 5.0	627.40	40,680	- 12.4
Sept. 30	819.50	11,900	+ 1.8	628.12	41,360	+ 11.4
WTR YR 1979	--	--	+ 0.5	--	--	+ 1.1

TOHICKON CREEK BASIN

01459500 TOHICKON CREEK NEAR PIPERSVILLE, PA

LOCATION.--Lat 40°26'01", long 75°07'01", Bucks County, Hydrologic Unit 02040105, on right bank at highway bridge, 1.5 mi (2.4 km) northeast of Pipersville, and 4.5 mi (7.2 km) upstream from mouth.

DRAINAGE AREA.--97.4 mi^2 (252.3 km^2).

PERIOD OF RECORD.--July 1935 to current year.

REVISED RECORDS.--WDR PA-75-1: 1974.

GAGE.--Water-stage recorder. Datum of gage is 258.96 ft (78.931 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for winter periods, which are poor. Regulation at low flow by mills above station, and since December 1973 by Nockamixon Lake about 6.2 mi (10.0 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--44 years, 147 ft^3/s (4.163 m^3/s), 20.45 in/yr (519 mm/yr), adjusted for storage since December 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft^3/s (453 m^3/s) Aug. 18, 1955, gage height, 11.26 ft (3.432 m), from rating curve extended above 3,600 ft^3/s (102 m^3/s) on basis of slope-area measurement at gage height 10.48 ft (3.194 m); minimum, 0.05 ft^3/s (0.001 m^3/s) Sept. 29, 1941; minimum daily, 0.1 ft^3/s (0.003 m^3/s) Sept. 24, 29, Oct. 6, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,900 ft^3/s (309 m^3/s) Jan. 24, gage height, 9.78 ft (2.981 m); minimum discharge, 7.0 ft^3/s (0.20 m^3/s) Nov. 15, 17, gage height, 0.84 ft (0.256 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	23	76	307	110	570	87	125	87	55	105	16
2	14	22	48	2380	90	492	89	91	77	45	80	14
3	13	20	36	2270	60	438	103	80	91	31	101	13
4	13	19	130	654	45	338	157	80	199	29	101	12
5	13	18	352	284	35	385	343	77	184	30	64	11
6	20	18	289	167	32	1190	280	67	127	27	47	1100
7	19	17	167	163	30	948	148	59	89	22	36	690
8	17	17	410	2670	35	480	99	55	73	19	30	248
9	16	16	1440	1460	33	293	142	52	62	17	24	103
10	14	15	1190	528	32	219	498	48	52	15	20	76
11	13	756	744	253	31	666	329	42	145	14	20	56
12	12	648	828	151	33	444	188	36	191	12	163	41
13	11	16	810	112	32	231	125	41	115	12	558	35
14	16	8.5	642	188	31	184	420	67	77	11	293	36
15	22	7.4	40	184	35	151	552	82	59	21	130	65
16	19	7.4	31	125	32	101	329	77	46	900	83	61
17	20	7.7	36	97	30	93	203	59	38	450	61	48
18	20	30	219	91	30	91	136	52	35	534	48	39
19	20	19	405	93	30	83	101	87	31	410	52	34
20	20	13	24	110	32	82	83	235	26	199	45	29
21	20	12	97	3040	35	77	77	199	22	101	39	85
22	19	11	65	1890	40	76	73	127	22	80	34	2930
23	18	12	42	624	50	76	70	329	43	62	30	1120
24	19	21	70	5250	75	122	64	2460	32	50	27	390
25	16	17	486	3350	2000	361	59	1690	28	43	26	174
26	15	14	91	612	4130	307	65	846	23	52	24	103
27	33	14	87	410	1650	163	352	420	20	68	22	83
28	29	16	97	325	756	103	582	227	19	74	22	71
29	27	18	103	258	---	97	352	160	27	395	20	62
30	26	105	91	199	---	93	191	167	22	235	20	79
31	24	---	77	151	---	91	---	105	---	---	19	---
TOTAL	572	1938.0	9223	28396	9554	9045	6297	8242	2062	4061	2344	7824
MEAN	18.5	64.6	298	916	341	292	210	266	68.7	131	75.6	261
MAX	33	756	1440	5250	4130	1190	582	2460	199	900	558	2930
MIN	11	7.4	24	91	30	76	59	36	19	11	19	11
/	+1.79	-16.5	+18.2	+6.83	+7.56	0	-7.06	-2.28	-4.71	+3.42	-3.42	+3.53
MEAN≠	20.2	48.1	316	923	349	292	203	264	64.0	134	72.2	264
CFSM≠	.21	.49	3.24	9.47	3.58	3.00	2.08	2.71	.66	1.38	.74	2.71
IN≠	.24	.55	3.74	10.93	3.73	3.45	2.32	3.12	.73	1.59	.85	3.03

CAL YR 1978 TOTAL 60490 MEAN 166 MAX 1620 MIN 27 MEAN≠ 223 CFSM≠ 2.29 IN≠ 31.06
WTR YR 1979 TOTAL 72050 MEAN 197 MAX 2000 MIN 27 MEAN≠ 246 CFSM≠ 2.53 IN≠ 34.29

/ Change in contents in Nockamixon Lake, equivalent in cubic feet per second, furnished by PA Department of Environmental Resources.

≠ Adjusted for change in contents in Nockamixon Lake.

01463500 DELAWARE RIVER AT TRENTON, NJ

(National stream quality accounting network, Pesticide program, and Radiochemical program station)

LOCATION.--Lat 40°13'18", long 74°46'42", Mercer County, Hydrologic Unit 02040105, on left bank 450 ft (137 m) upstream from Calhoun Street Bridge at Trenton, 0.5 mi (0.8 km) upstream from Assunpink Creek, and at mile 134.5 (216.4 km).

DRAINAGE AREA.--6,780 mi² (17,560 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1913 to current year. October 1912 to February 1913 monthly discharge only, published in WSP 1302. Gage-height records collected in this vicinity since 1904 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 951: Drainage area. WSP 1302: 1913-20. WSP 1382: 1924, 1928.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1965, at datum 7.77 ft (2.368 m) higher. Feb. 24, 1913, to Oct. 2, 1928, nonrecording gage on downstream side of highway bridge at site 500 ft (152 m) downstream.

REMARKS.--Water-discharge records good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lakes Wallenpaupack and Hopatcong, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, Neversink, and Wild Creek Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs and to Delaware and Raritan Canal (see Delaware River Basin, diversions). Water diverted just above station by borough of Morrisville, PA, and city of Trenton for municipal supply (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--67 years, 11,772 ft³/s (333.4 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 329,000 ft³/s (9,320 m³/s) Aug. 20, 1955 (elevation, 28.60 ft or 8.717 m, from high-water mark in gage house) from rating curve extended above 230,000 ft³/s (6,510 m³/s); minimum, 1,180 ft³/s (33.4 m³/s) Oct. 31, 1963, elevation, 7.26 ft (2.213 m). Flow in Delaware and Raritan Canal not included.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 11, 1903, reached an elevation of about 28.5 ft (8.69 m) National Geodetic Vertical Datum of 1929, discharge estimated, 295,000 ft³/s (8,350 m³/s). Maximum elevation since 1903, 30.6 ft (9.33 m) National Geodetic Vertical Datum of 1929, Mar. 8, 1904, from floodmark (ice jam).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50,000 ft³/s (1,420 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Elevation (ft)	Elevation (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Elevation (ft)	Elevation (m)
Jan. 3	2245	83200	2356	16.40	4.999	Feb. 26	1500	77600	2198	16.01	4.880
Jan. 8	1730	51100	1447	14.09	4.295	Mar. 7	1015	98200	2781	17.45	5.319
Jan. 22	0300	55500	1572	14.44	4.401	May 27	1045	63300	1793	15.02	4.578
Jan. 25	1145	*117000	3313	18.70	5.700						

Minimum discharge, 3,090 ft³/s (87.5 m³/s) Nov. 17, gage height, 8.06 ft (2.457 m).

DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3360	4220	5590	7250	20600	32300	17900	19700	29600	6040	4500	3430
2	3740	4010	5470	16500	16800	30200	16300	17900	22600	6040	4430	3330
3	3360	4250	4790	63300	15000	28600	16400	16200	19400	5350	4600	3460
4	3300	4390	4900	64200	13300	24100	17600	15400	17900	5510	5710	3880
5	3490	4530	6290	39000	12400	21700	18100	15500	17100	5280	4640	3680
6	3840	4350	6890	29100	11700	57400	17800	15400	15400	4790	4080	11800
7	4790	4180	7020	21700	10700	94200	16700	13400	13800	4530	3940	23300
8	4570	4220	7110	41300	10300	72400	15200	12300	12800	4500	3650	18500
9	4220	3710	12800	45900	10100	53500	14100	11800	11600	4530	3490	16000
10	3740	3550	17700	37400	9470	41200	18500	11100	10600	4220	3300	11400
11	3550	3980	17900	27600	9780	38200	22900	10900	10900	4010	3490	8560
12	3550	4430	15300	21300	10000	39500	22100	10700	12300	4010	4460	6980
13	3580	3710	12900	17000	10000	35200	20400	9780	13000	4010	8370	6460
14	3810	3240	11400	16600	9600	30400	21500	9320	11400	4250	7020	6000
15	4010	3330	9990	15600	9400	26500	24500	9210	9620	5550	6000	6160
16	4390	3330	9210	14200	9800	23200	25400	9110	8710	5090	4710	6630
17	5200	3150	8080	13600	9000	19900	23900	8420	7990	8030	4390	5750
18	5200	3650	7290	11700	8000	18200	21700	7710	7340	8610	3980	5750
19	4500	4750	7470	11100	7500	16800	19700	7430	6670	9060	3840	5050
20	3980	4390	6370	9680	8200	15600	17600	8520	6330	7340	3810	4680
21	3710	3910	6460	31200	8400	14700	16200	8910	5710	5910	4010	4460
22	3740	4320	7660	47100	8300	14200	14700	8270	5390	5160	3610	18400
23	4040	4110	8420	52100	8200	13800	12700	8910	5710	4820	3710	17300
24	3980	4180	8370	46600	10300	14200	11900	22600	5320	4280	3680	13500
25	3810	4640	11600	106000	20000	17400	11600	40200	4790	4750	3620	11800
26	3840	4430	9990	86800	67200	27400	11000	58300	4640	4570	3940	11100
27	3810	4220	8320	65500	46700	31000	12700	61600	4820	4460	4710	9160
28	3880	4640	7750	48900	34000	25600	18400	52900	4640	4150	4080	8080
29	4110	4790	7290	39000	---	21200	26100	42600	4710	4180	3840	7520
30	5550	5200	6630	31000	---	19800	24500	38700	5350	6760	3840	9730
31	4750	---	6500	25100	---	18900	---	34600	---	5430	3650	---
TOTAL	125400	123810	273460	1083330	424750	937300	550300	617390	316140	165220	135340	271850
MEAN	4045	4127	8821	34950	15170	30240	18340	19920	10538	5330	4366	9062
MAX	5550	5200	17900	106000	67200	94200	28100	61600	29600	9060	8370	23300
MIN	3300	3150	4790	7250	7500	13800	11000	7430	4640	4010	3300	3330

CAL YR 1978 TOTAL 4640610 MEAN 12710 MAX 79200 MIN 3150
WTR YR 1979 TOTAL 5024290 MEAN 13770 MAX 106000 MIN 3150

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1945 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1968 to current year.
pH: June 1968 to current year.
WATER TEMPERATURES: October 1944 to current year.
DISSOLVED OXYGEN: October 1962 to current year.
SUSPENDED-SEDIMENT DISCHARGE: September 1949 to current year.

INSTRUMENTATION.--Temperature recorder since October 1944, water-quality recorder since October 1962.

REMARKS.--Missing continuous water-quality records are the result of malfunction of sensor or sampling mechanism.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 400 micromhos Jan. 24, 1959; minimum, 50 micromhos Mar. 19, 1945.
pH: Maximum, 10.2 July 5, 6, 1971, June 14, 15, 1974; minimum, 5.3 June 22, 1972.
WATER TEMPERATURES: Maximum, 34.0°C June 18, 1957; minimum 0.0°C on many days during winter months.
DISSOLVED OXYGEN: Maximum, 17.3 mg/L July 9, 1974; minimum, 4.0 mg/L Nov. 9, 1972.
SEDIMENT CONCENTRATIONS: Maximum daily, 1,720 mg/L Nov. 26, 1950; minimum daily, less than 0.5 mg/L Oct. 21, 1952 and Jan. 18, 1970.
SEDIMENT LOADS: Maximum daily, 1,087,000 tons (986,126 tonnes) Aug. 20, 1955; minimum daily, less than 0.5 ton (0.45 tonnes) Oct. 21, 1952.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 644 mg/L Jan. 25, 1979; minimum daily mean, 1 mg/L Feb. 21, 22, 1979.
SEDIMENT LOADS: Maximum daily, 186,000 tons (169,000 Mg) Jan. 25, 1979; minimum daily, 19 tons (17 Mg) on Oct. 12, 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)
OCT										
25...	1120	3910	207	7.6	12.0	1.0	11.7	--	--	12
NOV										
28...	1100	4740	191	7.3	3.5	1.0	12.7	--	2.5	150
DEC										
13...	1030	13100	141	7.1	2.0	6.0	13.8	--	2.5	K160
JAN										
30...	1100	31000	112	7.3	2.0	4.0	13.8	19	1.1	K130
FEB										
28...	1030	32500	128	7.3	2.0	19	14.0	13	2.2	1000
MAR										
07...	1100	97900	--	--	--	--	--	--	--	--
14...	1120	30200	105	7.2	4.0	2.0	12.3	16	1.6	--
APR										
11...	1045	22500	126	7.6	6.5	5.0	12.4	13	2.1	17
MAY										
16...	1215	9370	164	7.8	19.5	2.0	9.2	--	2.1	--
JUN										
20...	1100	6470	188	9.0	24.0	1.0	11.6	--	2.8	K3
JUL										
18...	1230	7800	205	7.8	26.0	45	6.9	29	1.5	K2500
AUG										
08...	1430	3650	226	8.6	28.0	5.0	10.4	--	4.4	K61
13...	1130	8860	--	--	--	--	--	--	--	--
SEP										
19...	1130	4880	180	7.8	21.0	2.0	10.8	4	1.2	1800

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT										
25...	2	80	21	6.8	9.5	1.7	50	28	13	.1
NOV										
28...	>10000	73	19	6.2	8.8	1.6	41	28	13	.1
DEC										
13...	320	44	11	4.1	6.5	1.5	30	20	9.8	.1
JAN										
30...	100	37	9.4	3.3	5.4	1.0	20	16	9.0	.1
FEB										
28...	880	38	10	3.1	6.5	1.5	19	15	10	.0
MAR										
07...	--	--	--	--	--	--	--	--	--	--
14...	320	37	9.8	3.0	5.0	1.0	19	15	7.9	.1
APR										
11...	29	46	12	3.8	5.8	1.1	21	19	8.7	.1
MAY										
16...	--	61	16	5.2	6.6	1.4	36	20	12	.0
JUN										
20...	150	70	18	6.2	7.8	1.5	51	25	11	.1
JUL										
18...	800	79	21	6.4	8.0	2.2	44	28	12	.1
AUG										
08...	K45	84	22	7.0	9.6	2.1	53	26	14	.1
13...	--	--	--	--	--	--	--	--	--	--
SEP										
19...	K74	65	17	5.5	8.2	1.3	36	24	11	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT									
25...	2.0	127	3	32	--	1.2	.05	.26	.31
NOV									
28...	2.8	117	8	102	29	1.2	.15	.26	.41
DEC									
13...	4.5	86	17	601	38	1.1	.19	.34	.53
JAN									
30...	4.4	69	43	3600	74	.65	.12	.18	.30
FEB									
28...	3.9	78	70	6140	80	.71	.17	.58	.75
MAR									
07...	--	--	285	75300	69	--	--	--	--
14...	4.0	71	16	1310	59	.74	.10	.20	.30
APR									
11...	3.9	72	15	911	63	--	--	--	--
MAY									
16...	3.6	87	9	228	73	.90	.07	.42	.49
JUN									
20...	1.9	121	4	70	82	.71	.04	.39	.43
JUL									
18...	4.8	143	129	2720	92	1.3	.12	.88	1.0
AUG									
08...	4.0	145	18	177	77	1.0	.01	.67	.68
13...	--	--	65	1560	99	--	--	--	--
SEP									
19...	3.8	115	12	158	60	.86	.05	1.2	1.2

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

DATE	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
OCT									
25...	.00	.31	1.5	.120	--	.090	3.8	--	--
NOV									
28...	.10	.31	1.6	.110	--	.090	--	3.2	4.2
DEC									
13...	.10	.43	1.6	.080	--	.050	3.8	--	--
JAN									
30...	.14	.16	.95	.040	--	.030	3.2	--	--
FEB									
28...	.17	.58	1.5	.110	--	.050	--	6.0	--
MAR									
07...	--	--	--	--	--	--	--	--	--
14...	.00	.30	1.0	.040	--	.020	9.7	--	--
APR									
11...	--	--	--	--	--	--	--	--	--
MAY									
16...	.22	.27	1.4	.090	.28	.060	--	2.6	.5
JUN									
20...	.22	.21	1.1	.060	.18	.030	4.5	--	--
JUL									
18...	.39	.61	2.3	.230	--	.090	6.2	--	--
AUG									
08...	.39	.29	1.7	.130	--	.070	--	5.3	--
13...	--	--	--	--	--	--	--	--	--
SEP									
19...	.30	.90	2.1	.090	--	.070	3.3	--	--

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)
NOV										
28...	1100	3	1	0	0	0	2	0	2	10
FEB										
28...	1030	3	2	0	0	0	0	0	0	<10
MAY										
16...	1215	2	3	0	0	0	2	1	1	<20
AUG										
08...	1430	2	1	100	50	50	1	1	0	20

DATE	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)
NOV										
28...	10	0	1	1	0	4	2	2	120	70
FEB										
28...	<10	0	2	0	2	6	4	2	1400	1300
MAY										
16...	10	<10	1	1	0	5	2	3	220	200
AUG										
08...	10	10	2	2	0	6	3	3	530	520

DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)
NOV										
28...	50	12	0	12	100	90	10	<.5	.0	<.5
FEB										
28...	80	5	4	1	60	20	40	<.5	.0	<.5
MAY										
16...	20	16	16	0	70	60	10	<.5	.0	<.5
AUG										
08...	10	6	6	0	60	60	1	<.5	<.0	<.5

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

DATE	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
NOV 28...	0	0	0	0	0	0	50	10	40
FEB 28...	0	0	0	0	0	0	50	40	10
MAY 16...	0	0	0	0	0	0	40	20	20
AUG 08...	0	0	0	0	0	0	20	10	9

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM DISSOLVED, EXTRACTION (UG/L)
JAN 30...	1100	<1.0	.5	1.6	.7	1.5	.7	.03	.40

DATE	TIME	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 28...	1100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 28...	1030	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 16...	1215	ND	--	ND	ND	ND	ND	ND	ND	ND	ND
AUG 08...	1430	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 28...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 08...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)
NOV 28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 28...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 08...	ND	--	ND	--	ND	--	ND	--	ND	--

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

DATE	METHYL PARA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI- THION, TOTAL (UG/L)	METHYL TRI- THION, TOT. IN BOTTOM MATL. (UG/KG)	PARA- THION, TOTAL (UG/L)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
NOV 28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 28...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 08...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	LENGTH OF EXPO- SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)
NOV 28...	33	8.66	6.14	47.2	4.12
FEB 28...	28	.000	.000	.000	.000
MAY 16...	34	10.0	7.64	8.48	2.21
AUG 08...	20	2.36	2.05	.140	.000

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1978 TO SEPTEMBER 1979

DATE	NOV 28,78	MAR 14,79	MAY 16,79	JUN 28,79
TIME	1100	1120	1215	1100
TOTAL CELLS/ML	420	400	7000	21000
DIVERSITY: DIVISION	0.8	0.2	0.9	1.5
.CLASS	0.8	0.2	0.9	1.5
..ORDER	1.5	0.8	1.6	1.9
...FAMILY	2.8	0.8	2.2	2.3
....GENUS	3.0	0.8	2.5	3.4

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	14	4	--	-	*	0
...COELASTRACEAE								
....COELASTRUM	--	-	--	-	--	-	1100	5
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	--	-
...MICRACTINIACEAE								
....MICRACTINIUM	--	-	--	-	230	3	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	560	8	--	-
....CHODATELLA	--	-	--	-	--	-	--	-
....GLOEOACTINIUM	--	-	--	-	560	8	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	190	3	260	1
....SELENASTRUM	--	-	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....CRUCIGENIA	--	-	--	-	--	-	--	-
....SCENEDESMUS	58	14	--	-	560	8	6000#	29
....TETRASTRUM	--	-	--	-	--	-	260	1
..TETRASPORALES								
...PALMELLACEAE								
....GLOEOCYSTIS	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE	29	7	--	-	--	-	--	-
....CHLAMYDOMONAS	--	-	--	-	320	5	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....COSMARIUM	15	3	--	-	--	-	--	-
....EUASTRUM	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	--	-	3900#	56	2200	11
....MELOSIRA	29	7	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	140	2	--	-
....COCCONEIS	--	-	--	-	--	-	--	-
...CYMBELLACEAE								
....CYMBELLA	--	-	--	-	280	4	--	-
...DIATOMACEAE								
....DIATOMA	44	10	--	-	--	-	--	-
...FRAGILARIACEAE								
....FRAGILARIA	--	-	--	-	--	-	590	3
....SYNEDRA	120#	28	--	-	140	2	*	0
...GOMPHONEMATACEAE								
....GOMPHONEMA	15	3	--	-	--	-	--	-
...NAVICULACEAE								
....NAVICULA	87#	21	--	-	140	2	--	-
...NITZSCHIACEAE								
....NITZSCHIA	29	7	--	-	46	1	330	2
...TABELLARIACEAE								
....TABELLARIA	--	-	--	-	93	1	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	58	14	--	-	1700	8
....COCCOCHLORIS	--	-	--	-	--	-	130	1
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	330#	82	--	-	7900#	38
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
      * - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1978 TO SEPTEMBER 1979

DATE	JUL 18,79	AUG 8,79	SEP 19,79
TIME	1230	1430	1130
TOTAL CELLS/ML	20000	160000	3800
DIVERSITY: DIVISION	1.2	0.7	1.1
.CLASS	1.2	0.7	1.1
..ORDER	1.3	0.8	1.5
...FAMILY	2.2	1.0	2.4
....GENUS	2.7	1.1	3.0

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHARACIACEAE						
....SCHROEDERIA	--	-	--	-	*	0
...COELASTRACEAE						
....COELASTRUM	--	-	4100	3	34	1
...HYDRODICTYACEAE						
....PEDIASTRUM	1300	7	--	-	--	-
...MICRACTINIACEAE						
....MICRACTINIUM	--	-	--	-	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	1600	8	2100	1	600#	16
....CHODATELLA	*	0	--	-	--	-
....GLOEOACTINIUM	--	-	--	-	--	-
....KIRCHNERIELLA	2700	14	--	-	810#	21
....OOCYSTIS	--	-	--	-	--	-
....SELENASTRUM	--	-	6200	4	34	1
....TREUBARIA	--	-	*	0	--	-
...SCENEDESMACEAE						
....CRUCIGENIA	1300	7	--	-	--	-
....SCENEDESMUS	5200#	26	4800	3	1100#	28
....TETRASTRUM	--	-	--	-	69	2
..TETRASPORALES						
...PALMELLACEAE						
....GLOEOCYSTIS	--	-	--	-	140	4
..VOLVOCALES						
...CHLAMYDOMONADACEAE	--	-	--	-	--	-
....CHLAMYDOMONAS	--	-	3400	2	51	1
..ZYGNEMATALES						
...DESMIDIACEAE						
....COSMARIUM	--	-	--	-	--	-
....EUASTRUM	--	-	--	-	*	0
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	490	3	2400	1	120	3
....MELOSIRA	*	0	--	-	*	0
..PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	--	-	*	0	*	0
....COCCONEIS	--	-	--	-	34	1
...CYMBELLACEAE						
....CYMBELLA	--	-	*	0	*	0
...DIATOMACEAE						
....DIATOMA	--	-	--	-	--	-
...FRAGILARIACEAE						
....FRAGILARIA	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	86	2
...GOMPHONEMATACEAE						
....GOMPHONEMA	--	-	--	-	--	-
...NAVICULACEAE						
....NAVICULA	--	-	--	-	--	-
...NITZSCHIACEAE						
....NITZSCHIA	490	3	1700	1	120	3
...TABELLARIACEAE						
....TABELLARIA	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....ANACYSTIS	6100#	31	140000#	84	--	-
....COCCOCHLORIS	--	-	--	-	--	-
..HORMOGONALES						
...NOSTOCACEAE						
....ANABAENA	--	-	--	-	530	14
...OSCILLATORIACEAE						
....OSCILLATORIA	280	1	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....TRACHELOMONAS	--	-	--	-	*	0

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	114	110	---	208	---
2	---	---	---	---	---	---	---	113	---	212	218	---
3	---	---	---	---	---	---	---	127	---	206	234	---
4	---	---	---	---	---	---	---	---	122	---	---	204
5	---	---	---	---	---	---	---	---	124	---	---	---
6	---	---	---	---	---	---	---	---	126	205	220	206
7	---	---	---	---	---	---	---	128	134	---	225	152
8	---	---	---	---	---	---	---	127	144	---	226	---
9	---	---	---	---	---	---	---	152	---	218	240	---
10	---	---	---	---	---	---	---	145	---	227	243	---
11	---	---	---	---	---	---	126	150	---	220	---	---
12	---	---	---	---	---	---	---	---	168	---	---	154
13	---	---	141	---	---	---	---	---	---	224	199	156
14	---	---	---	---	---	105	---	153	171	---	225	176
15	---	---	---	---	---	---	---	149	159	---	---	---
16	---	---	---	---	---	---	---	164	---	---	194	---
17	---	---	---	---	---	---	---	154	---	195	197	---
18	---	---	---	---	---	---	---	170	178	205	---	187
19	---	---	---	---	---	---	112	---	179	184	---	180
20	---	---	---	---	---	---	116	---	188	---	235	187
21	---	---	---	---	---	---	---	---	---	---	232	197
22	---	---	---	---	---	---	---	---	203	---	229	---
23	---	---	---	---	---	---	---	157	---	221	219	---
24	---	---	---	---	---	---	---	154	---	233	---	194
25	207	---	---	---	---	---	146	151	217	216	---	160
26	---	---	---	---	---	---	158	---	228	230	---	---
27	---	---	---	---	---	---	167	---	228	216	230	152
28	---	191	---	---	128	---	---	---	218	---	219	---
29	---	---	---	---	---	---	---	90	---	---	---	---
30	---	---	---	112	---	---	104	96	---	236	224	---
31	---	---	---	---	---	---	---	96	---	247	225	---
MEAN	207	191	141	112	128	105	133	136	170	217	222	177

PH (STANDARD UNITS), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	7.5	7.7	---	7.9	---
2	---	---	---	---	---	---	---	7.6	---	8.2	8.6	---
3	---	---	---	---	---	---	---	7.5	---	8.4	8.4	---
4	---	---	---	---	---	---	---	---	7.4	---	---	8.2
5	---	---	---	---	---	---	---	7.8	7.7	---	---	---
6	---	---	---	---	---	---	---	---	7.6	8.4	8.8	7.6
7	---	---	---	---	---	---	---	7.6	7.8	---	8.6	7.3
8	---	---	---	---	---	---	---	7.7	7.8	---	8.6	---
9	---	---	---	---	---	---	---	7.8	---	8.8	8.7	---
10	---	---	---	---	---	---	---	7.4	---	8.8	8.9	---
11	---	---	---	---	---	---	7.6	7.9	---	9.1	---	---
12	---	---	---	---	---	---	---	---	7.8	---	---	7.9
13	---	---	7.1	---	---	---	---	---	---	8.8	8.1	7.8
14	---	---	---	---	---	7.2	---	7.4	8.2	---	7.8	7.8
15	---	---	---	---	---	---	---	7.6	8.2	---	---	---
16	---	---	---	---	---	---	---	7.8	---	---	8.0	---
17	---	---	---	---	---	---	---	7.6	---	7.3	8.1	---
18	---	---	---	---	---	---	---	7.5	8.8	7.8	---	7.9
19	---	---	---	---	---	---	7.5	---	8.9	7.3	---	8.1
20	---	---	---	---	---	---	8.2	---	9.0	---	8.4	8.3
21	---	---	---	---	---	---	---	7.8	---	---	8.1	8.0
22	---	---	---	---	---	---	---	---	9.0	---	8.3	---
23	---	---	---	---	---	---	---	7.7	---	7.9	8.8	---
24	---	---	---	---	---	---	---	7.3	---	8.4	---	7.6
25	7.6	---	---	---	---	---	8.1	7.4	9.0	7.6	---	7.6
26	---	---	---	---	---	---	7.9	---	9.2	8.5	---	---
27	---	---	---	---	---	---	7.7	---	9.2	8.9	8.5	7.7
28	---	7.3	---	---	7.3	---	---	---	9.0	---	8.1	---
29	---	---	---	---	---	---	---	7.4	---	---	---	---
30	---	---	---	7.3	---	---	7.6	7.4	---	7.8	8.0	---
31	---	---	---	---	---	---	---	7.5	---	7.8	8.6	---
MEAN	7.6	7.3	7.1	7.3	7.3	7.2	7.8	7.6	8.4	8.2	8.4	7.8

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	14.5	18.5	---	27.0	---
2	---	---	---	---	---	---	---	14.5	---	22.5	30.0	---
3	---	---	---	---	---	---	---	14.5	---	22.5	28.0	---
4	---	---	---	---	---	---	---	---	17.5	---	---	26.5
5	---	---	---	---	---	---	---	---	20.0	---	---	---
6	---	---	---	---	---	---	---	---	22.0	21.5	29.0	25.0
7	---	---	---	---	---	---	---	15.5	22.0	---	27.0	24.0
8	---	---	---	---	---	---	---	17.0	22.5	---	28.0	---
9	---	---	---	---	---	---	---	19.0	---	24.5	28.5	---
10	---	---	---	---	---	---	---	21.0	---	22.5	27.5	---
11	---	---	---	---	---	---	6.5	22.0	---	24.0	---	---
12	---	---	---	---	---	---	---	---	18.5	---	---	23.0
13	---	---	2.0	---	---	---	---	---	---	26.0	21.0	22.0
14	---	---	---	---	---	4.0	---	18.5	21.5	---	23.0	22.5
15	---	---	---	---	---	---	---	18.0	20.0	---	---	---
16	---	---	---	---	---	---	---	19.5	---	---	21.5	---
17	---	---	---	---	---	---	---	18.0	---	27.5	21.0	---
18	---	---	---	---	---	---	---	17.5	23.0	---	---	21.0
19	---	---	---	---	---	---	8.0	---	23.0	---	---	21.0
20	---	---	---	---	---	---	9.0	---	23.5	---	23.5	20.5
21	---	---	---	---	---	---	---	17.0	---	---	22.5	19.5
22	---	---	---	---	---	---	---	---	22.5	---	24.0	---
23	---	---	---	---	---	---	---	18.0	---	26.0	26.0	---
24	---	---	---	---	---	---	---	18.0	---	28.0	---	16.5
25	12.0	---	---	---	---	---	15.0	16.5	20.5	27.5	---	16.0
26	---	---	---	---	---	---	15.5	---	22.0	28.5	---	18.0
27	---	---	---	---	---	---	16.5	---	22.0	28.5	27.0	---
28	---	3.5	---	---	2.0	---	---	---	23.0	---	26.5	---
29	---	---	---	---	---	---	---	14.5	---	---	---	---
30	---	---	---	2.0	---	---	16.0	16.0	---	25.5	26.0	---
31	---	---	---	---	---	---	---	16.5	---	26.0	27.0	---
MEAN	12.0	3.5	2.0	2.0	2.0	4.0	12.5	17.5	21.5	25.5	25.5	21.0

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	9.6	9.3	---	7.8	---
2	---	---	---	---	---	---	---	9.1	---	9.0	9.9	---
3	---	---	---	---	---	---	---	9.3	---	9.6	8.4	---
4	---	---	---	---	---	---	---	---	---	---	---	8.2
5	---	---	---	---	---	---	---	---	9.0	---	---	---
6	---	---	---	---	---	---	---	---	9.0	10.0	9.2	7.3
7	---	---	---	---	---	---	---	9.9	9.6	---	8.9	6.6
8	---	---	---	---	---	---	---	9.8	8.8	---	10.4	---
9	---	---	---	---	---	---	---	---	---	10.5	11.5	---
10	---	---	---	---	---	---	---	---	---	9.5	9.8	---
11	---	---	---	---	---	---	12.4	---	---	11.0	---	---
12	---	---	---	---	---	---	---	---	9.3	---	---	8.6
13	---	---	13.8	---	---	---	---	---	---	10.5	7.9	8.2
14	---	---	---	---	---	12.3	---	---	---	---	8.2	7.8
15	---	---	---	---	---	---	---	---	9.7	---	---	---
16	---	---	---	---	---	---	---	9.2	---	---	9.1	---
17	---	---	---	---	---	---	---	8.2	---	6.8	9.0	---
18	---	---	---	---	---	---	---	8.4	9.6	6.9	---	8.4
19	---	---	---	---	---	---	10.6	---	10.4	7.0	---	8.2
20	---	---	---	---	---	---	11.0	---	11.6	---	9.3	9.8
21	---	---	---	---	---	---	---	8.7	---	---	7.6	8.5
22	---	---	---	---	---	---	---	---	9.4	---	9.1	---
23	---	---	---	---	---	---	---	8.1	---	7.8	9.9	---
24	---	---	---	---	---	---	---	8.3	---	9.4	---	8.4
25	11.7	---	---	---	---	---	10.0	8.8	9.9	7.4	---	8.9
26	---	---	---	---	---	---	9.0	---	11.4	8.0	---	---
27	---	---	---	---	---	---	8.7	---	11.2	10.5	9.0	9.4
28	---	12.7	---	---	14.0	---	---	---	10.8	---	8.0	---
29	---	---	---	---	---	---	---	9.1	---	---	---	---
30	---	---	---	13.8	---	---	9.7	9.0	---	8.0	7.6	---
31	---	---	---	---	---	---	---	9.0	---	7.8	9.5	---
MEAN	11.7	12.7	13.8	13.8	14.0	12.3	10.2	9.0	9.9	8.8	9.0	8.3

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	3360	3	27	4220	6	72	5590	8	117
2	3740	3	30	4010	5	57	5470	6	82
3	3360	3	27	4250	5	57	4790	4	53
4	3300	3	27	4390	6	77	4900	4	53
5	3490	4	35	4530	7	86	6290	6	102
6	3840	5	52	4350	7	82	6890	9	169
7	4790	6	84	4180	6	71	7020	14	267
8	4570	8	101	4220	7	75	7110	25	482
9	4220	5	52	3710	5	49	12800	130	5680
10	3740	3	30	3550	5	45	17700	232	11100
11	3550	2	21	3980	6	63	17900	88	4040
12	3550	2	19	4430	8	96	15300	30	1280
13	3580	2	20	3710	6	60	12900	16	548
14	3810	3	31	3240	3	30	11400	9	283
15	4010	4	42	3330	4	34	9990	8	213
16	4390	6	72	3330	4	36	9210	6	147
17	5200	9	126	3150	4	34	8080	8	174
18	5200	7	94	3650	5	54	7290	6	114
19	4500	5	55	4750	9	110	7470	4	86
20	3980	4	43	4390	6	69	6370	4	63
21	3710	4	40	3910	3	36	6460	3	54
22	3740	5	48	4320	4	44	7660	4	92
23	4040	6	62	4110	3	33	8420	4	93
24	3980	5	49	4180	3	34	8370	4	90
25	3810	3	27	4640	4	50	11600	6	188
26	3840	4	38	4430	4	48	9990	10	257
27	3810	3	33	4220	3	36	8320	8	183
28	3880	2	24	4640	5	59	7750	8	167
29	4110	6	66	4790	6	81	7290	9	177
30	5550	8	124	5200	8	110	6630	8	139
31	4750	7	93	---	---	---	6500	9	153
TOTAL	125400	---	1592	123810	---	1788	273460	---	26646

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	7250	8	164	20600	14	784	32300	38	3290
2	16500	45	3170	16000	12	530	30200	30	2440
3	63300	317	56600	15000	8	326	28600	28	2140
4	64200	160	28900	13300	7	251	24100	29	1910
5	39000	87	9320	12400	7	226	21700	25	1450
6	29100	48	3840	11700	5	165	57400	167	32100
7	21700	25	1510	10700	5	144	94200	277	70800
8	41300	92	11400	10300	4	111	72400	126	25200
9	45900	82	10300	10100	4	108	53500	57	8370
10	37400	32	3340	9470	3	77	41200	35	3930
11	27600	19	1430	9780	7	191	38200	30	3100
12	21300	8	507	10000	45	4570	39500	28	2950
13	17000	6	276	10000	62	9270	35200	22	2060
14	16600	6	269	9600	34	4560	30400	14	1130
15	15600	6	257	9400	17	2220	26500	14	974
16	14200	10	364	9800	8	1050	23200	11	693
17	13600	6	214	9000	3	411	19900	9	468
18	11700	4	126	8000	3	296	18200	9	402
19	11100	4	118	7500	2	194	16800	8	332
20	9680	4	111	8200	2	193	15600	6	267
21	31200	128	15400	8400	1	112	14700	5	209
22	47100	217	27400	8300	1	112	14200	6	223
23	32100	64	5550	8200	3	334	13800	6	226
24	46600	145	26300	10300	54	7630	14200	10	379
25	106000	644	186000	20000	237	37000	17400	16	714
26	86800	185	42900	67200	435	80400	27400	25	1900
27	65500	92	15900	46700	184	24800	31000	32	2640
28	48900	48	6160	34000	55	5090	25600	21	1460
29	39000	33	4590	---	---	---	21200	13	723
30	31000	23	1910	---	---	---	19800	9	470
31	25100	18	1240	---	---	---	18900	8	408
TOTAL	1083330	---	465566	424750	---	101155	937300	---	173358

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	17900	8	386	19700	22	1160	29600	18	1460
2	16300	7	313	17900	14	664	22600	15	963
3	16400	8	341	16200	11	497	19400	12	634
4	17600	9	374	15400	9	375	17900	12	550
5	18100	8	356	15500	8	342	17100	11	494
6	17800	8	384	15400	9	380	15400	10	420
7	16700	8	354	13400	8	285	13800	8	284
8	15200	6	258	12300	7	245	12800	9	315
9	14100	5	174	11800	7	211	11600	8	237
10	18500	10	484	11100	7	220	10600	7	206
11	22900	14	856	10900	8	235	10900	10	289
12	22100	14	827	10700	9	272	12300	20	676
13	20400	11	618	9780	9	243	13000	19	666
14	21500	14	800	9320	9	236	11400	12	384
15	24500	16	1070	9210	9	218	9620	7	193
16	25400	13	915	9110	9	225	8710	5	109
17	23900	10	678	8420	7	171	7990	3	71
18	21700	8	503	7710	6	117	7340	3	59
19	19700	7	398	7430	7	134	6670	3	55
20	17800	12	558	8520	8	181	6330	3	49
21	16200	10	432	8910	9	206	5710	2	35
22	14700	8	301	8270	6	145	5390	4	53
23	12700	6	215	8910	9	220	5710	4	62
24	11900	6	194	22600	138	8690	5320	3	47
25	11600	6	197	40200	102	10900	4790	4	46
26	11000	9	266	58300	108	17000	4640	5	64
27	12700	11	388	61600	76	12700	4820	6	80
28	18400	32	1630	52900	51	7450	4640	7	87
29	28100	54	4070	42600	33	3860	4710	7	94
30	24500	37	2490	38700	33	3440	5350	8	115
31	---	---	---	34600	22	2060	---	---	---
TOTAL	550300	---	20830	617390	---	73082	316140	---	8805

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	6040	8	132	4500	21	254	3430	5	46
2	6040	16	261	4430	16	199	3330	6	53
3	5350	11	168	4600	33	404	3460	6	58
4	5510	9	138	5710	40	579	3880	8	81
5	5280	9	124	4680	32	410	3680	11	111
6	4790	7	90	4080	20	218	11800	92	3590
7	4530	5	67	3940	17	185	23300	334	21700
8	4500	6	71	3650	14	139	18500	268	13300
9	4530	6	72	3490	11	108	16000	201	8760
10	4220	5	53	3300	14	123	11400	109	3370
11	4010	4	38	3490	13	123	8560	39	915
12	4010	4	43	4460	22	287	6980	21	404
13	4010	5	52	8370	53	1210	6460	18	304
14	4250	7	81	7020	33	619	6000	16	256
15	5550	46	734	6000	19	311	6160	15	239
16	5090	49	705	4710	13	168	6630	11	202
17	8030	334	7440	4390	11	125	5750	9	146
18	8610	208	4780	3980	7	75	5750	12	180
19	9060	237	5780	3840	5	54	5050	9	125
20	7340	167	3310	3810	5	54	4680	7	86
21	5910	103	1650	4010	6	65	4460	8	99
22	5160	61	842	3810	6	60	18400	119	6830
23	4820	36	474	3710	4	36	17300	74	3500
24	4280	23	266	3680	5	47	13500	33	1220
25	4750	35	446	3620	5	49	11800	22	694
26	4570	33	406	3940	6	64	11100	20	598
27	4460	23	273	4710	10	131	9160	19	467
28	4150	14	159	4080	8	92	8080	17	380
29	4180	16	183	3840	9	94	7520	16	324
30	6760	54	1000	3840	8	79	9730	14	368
31	5430	34	506	3650	4	40	---	---	---
TOTAL	165220	---	30346	135340	---	6402	271850	---	68406
YEAR	5024290		1057976						

01464600 DELAWARE RIVER AT BRISTOL, PA-BURLINGTON, NJ BRIDGE

LOCATION.--Lat 40°04'55", long 74°51'58", Bucks County, Hydrologic Unit 02040201, at center of river 1,300 ft (396 m) upstream from bridge on a line from the Pennsylvania bank through channel station -79.2 to Lehigh range light on New Jersey bank.

DRAINAGE AREA.--7,163 mi² (18,508 km²).

PERIOD OF RECORD.--August 1949 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1967 to September 1975, July 1978 to current year.
pH: October 1967 to September 1975, July 1978 to current year.
WATER TEMPERATURES: October 1954 to September 1975, July 1978 to current year.
DISSOLVED OXYGEN: October 1961 to September 1975, July 1978 to current year.

REMARKS.--Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1809-0.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 397 micromhos Nov. 1, 1970; minimum, 54 micromhos June 5, 1968.
pH: Maximum, 9.2 Sept. 28, 29, 1978; minimum, 3.9 Sept. 2, 1978.
WATER TEMPERATURES: Maximum, 31.0°C July 9, 1966; minimum, freezing point on many days during winter months.
DISSOLVED OXYGEN: MAXIMUM, 16.0 mg/L Jan. 12, 1974; minimum, 0.0 on several days during 1963, 1965, and 1967.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)
APR 28...	1610	150	7.6	15.5	14	63	35	17	4.9	8.6	1.5	34

DATE	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)
APR 28...	0	28	1.4	22	11	102	1.1	.06	1.2	.2	.31	21

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN,TOT IN BOTTOM MATERIAL (MG/KG AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO. TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)
APR 28...	.48	.79	2000	2.0	2000	.100	.04	550	1	<10	10

DATE	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)
APR 28...	<10	<10	8800	10	450	.03	0	870	7.3	14	.4

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
APR 28...	5	.0	3	3.9	5.2	.5	.2	.0	.0	.0	0

01464600 DELAWARE RIVER AT BRISTOL, PA-BURLINGTON, NJ BRIDGE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	245	238	240	260	253	254	238	229	234	206	198	202
2	257	241	245	262	254	256	246	228	233	209	196	203
3	259	243	250	260	253	256	236	224	230	---	---	---
4	263	247	254	264	248	258	237	224	229	---	---	---
5	267	251	260	261	239	252	233	221	227	---	---	---
6	274	259	266	253	233	243	232	220	226	---	---	---
7	275	265	271	244	233	238	231	221	225	---	---	---
8	---	---	---	242	234	237	231	224	226	---	---	---
9	---	---	---	244	233	236	226	224	225	---	---	---
10	---	---	---	239	234	235	---	---	---	---	---	---
11	---	---	---	243	234	236	---	---	---	---	---	---
12	271	266	269	242	234	237	---	---	---	---	---	---
13	272	264	268	243	235	238	167	152	160	---	---	---
14	270	263	267	244	236	238	160	151	154	---	---	---
15	272	261	267	242	237	239	167	155	157	---	---	---
16	270	262	266	243	237	239	167	160	163	---	---	---
17	268	263	266	245	238	240	172	165	168	---	---	---
18	271	264	266	248	238	241	173	169	171	---	---	---
19	274	260	265	250	241	243	178	171	173	---	---	---
20	268	258	263	251	246	248	185	173	176	---	---	---
21	267	257	261	255	250	252	186	177	180	---	---	---
22	265	251	258	260	253	255	193	185	188	---	---	---
23	260	245	254	261	254	257	199	190	193	150	140	144
24	254	240	248	260	255	257	204	194	198	147	143	---
25	254	241	247	263	256	259	211	199	206	---	---	---
26	250	241	244	261	250	257	209	170	191	---	---	---
27	256	243	245	261	244	254	193	167	177	---	---	---
28	255	246	249	257	237	248	180	169	174	---	---	---
29	258	249	252	249	234	242	190	174	180	---	---	---
30	257	252	254	244	230	237	200	179	188	---	---	---
31	257	252	254	---	---	---	205	191	197	---	---	---
MONTH	275	238	257	264	230	246	246	151	195	209	140	183

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	131	121	126	---	---	---	127	112	118
2	138	136	---	---	---	---	---	---	---	122	113	116
3	---	---	---	---	---	---	---	---	---	127	118	121
4	---	---	---	---	---	---	138	135	137	133	122	127
5	---	---	---	---	---	---	140	138	---	137	129	132
6	---	---	---	---	---	---	---	---	---	142	134	137
7	---	---	---	---	---	---	---	---	---	144	137	140
8	---	---	---	83	78	81	---	---	---	143	135	139
9	---	---	---	97	82	87	---	---	---	144	137	139
10	---	---	---	101	90	95	---	---	---	151	139	144
11	---	---	---	107	97	102	---	---	---	155	145	149
12	---	---	---	116	106	111	---	---	---	158	151	154
13	---	---	---	---	---	---	---	---	---	167	155	158
14	---	---	---	117	113	---	---	---	---	168	160	163
15	---	---	---	---	---	---	---	---	---	171	164	166
16	---	---	---	---	---	---	---	---	---	173	167	169
17	---	---	---	---	---	---	---	---	---	178	171	175
18	---	---	---	---	---	---	---	---	---	185	176	181
19	---	---	---	---	---	---	---	---	---	189	182	185
20	---	---	---	---	---	---	---	---	---	194	185	189
21	---	---	---	143	142	---	---	---	---	195	189	191
22	---	---	---	---	---	---	---	---	---	199	192	195
23	---	---	---	---	---	---	144	137	139	200	194	197
24	---	---	---	---	---	---	146	137	141	198	172	189
25	---	---	---	---	---	---	154	142	148	181	149	159
26	---	---	---	---	---	---	163	150	155	154	105	132
27	---	---	---	---	---	---	182	154	161	109	89	99
28	122	111	115	112	108	---	168	163	165	92	82	85
29	---	---	---	---	---	---	171	157	168	91	84	87
30	---	---	---	---	---	---	165	118	141	99	91	93
31	---	---	---	---	---	---	---	---	---	103	96	98
MONTH	138	111	115	143	78	100	182	118	151	200	82	146

DELAWARE RIVER BASIN

01464600 DELAWARE RIVER AT BRISTOL, PA-BURLINGTON, NJ BRIDGE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	107	98	102	252	239	244	256	244	251	242	233	238
2	113	104	108	251	245	248	255	244	250	243	231	239
3	117	111	114	256	249	251	---	---	---	243	231	238
4	127	116	120	256	251	252	---	---	---	244	227	238
5	137	123	129	254	244	251	---	---	---	245	226	239
6	142	133	136	252	240	247	---	---	---	252	226	238
7	141	136	137	249	237	244	---	---	---	240	178	218
8	145	138	141	245	233	241	---	---	---	196	155	179
9	155	142	146	242	231	238	---	---	---	148	138	145
10	155	147	151	240	230	235	245	234	242	136	129	131
11	160	152	155	240	231	234	245	238	242	139	125	130
12	163	157	159	236	232	235	244	238	243	134	127	129
13	166	157	162	240	234	236	252	244	246	137	130	132
14	175	162	168	245	233	239	251	244	248	144	134	137
15	182	173	177	245	237	240	254	227	240	155	139	148
16	182	176	178	245	226	238	237	219	229	167	149	158
17	182	177	179	241	226	235	231	218	224	177	156	166
18	185	178	180	241	229	236	228	217	222	185	162	174
19	187	179	183	238	215	227	225	214	219	195	170	183
20	201	183	188	227	211	218	221	212	217	199	177	189
21	199	187	193	220	204	213	220	214	216	201	182	193
22	203	190	198	216	206	211	220	215	216	198	175	192
23	209	194	203	218	210	212	220	216	217	196	153	177
24	217	202	210	218	211	215	225	216	219	165	157	162
25	220	208	215	222	215	219	229	220	225	168	160	164
26	227	207	219	228	219	222	236	225	230	167	158	161
27	232	217	225	235	221	227	236	229	232	163	157	159
28	241	222	231	239	224	232	238	231	234	163	158	160
29	241	227	235	246	229	239	238	232	234	163	158	160
30	246	235	240	251	233	243	238	234	235	163	157	160
31	---	---	---	255	236	247	240	233	237	---	---	---
MONTH	246	98	173	256	204	234	256	212	232	252	125	178

PH (UNITS), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.5	7.3	7.4	7.5	7.3	7.4	7.3	7.2	7.3	7.4	7.3	7.4
2	7.5	7.2	7.3	7.5	7.3	7.4	7.3	7.3	7.3	7.4	7.3	7.4
3	7.4	7.2	7.3	7.5	7.3	7.4	7.3	7.3	7.3	---	---	---
4	7.3	7.1	7.2	7.4	7.3	7.3	7.3	7.3	7.3	---	---	---
5	7.2	7.1	7.1	7.4	7.2	7.3	7.3	7.2	7.2	---	---	---
6	7.3	7.1	7.2	7.3	7.2	7.2	7.3	7.2	7.2	---	---	---
7	7.3	7.2	7.3	7.3	7.2	7.2	7.2	7.2	7.2	---	---	---
8	---	---	---	7.2	7.2	7.2	7.2	7.1	7.2	---	---	---
9	---	---	---	7.3	7.1	7.2	7.2	7.1	7.2	---	---	---
10	---	---	---	7.3	7.2	7.2	---	---	---	---	---	---
11	---	---	---	7.3	7.2	7.2	---	---	---	---	---	---
12	7.6	7.4	7.5	7.3	7.2	7.2	---	---	---	---	---	---
13	7.6	7.4	7.5	7.2	7.2	7.2	7.2	7.2	7.2	---	---	---
14	7.5	7.3	7.4	7.3	7.1	7.2	7.3	7.2	7.2	---	---	---
15	7.5	7.3	7.4	7.2	7.2	7.2	7.3	7.2	7.2	---	---	---
16	7.4	7.3	7.4	7.2	7.2	7.2	7.3	7.2	7.3	---	---	---
17	7.6	7.3	7.4	7.2	7.2	7.2	7.3	7.2	7.3	---	---	---
18	7.5	7.3	7.4	7.4	7.1	7.2	7.4	7.3	7.3	---	---	---
19	7.5	7.3	7.4	7.3	7.2	7.2	7.4	7.3	7.3	---	---	---
20	7.5	7.3	7.4	7.3	7.2	7.2	7.3	7.2	7.3	---	---	---
21	7.6	7.4	7.4	7.3	7.2	7.2	7.3	7.3	7.3	---	---	---
22	7.6	7.4	7.5	7.2	7.2	7.2	7.4	7.3	7.3	---	---	---
23	7.7	7.4	7.5	7.2	7.2	7.2	7.4	7.3	7.3	7.5	7.3	7.4
24	7.7	7.4	7.5	7.3	7.2	7.2	7.4	7.3	7.3	7.4	7.3	---
25	7.6	7.4	7.5	7.3	7.2	7.2	7.5	7.4	7.4	---	---	---
26	7.5	7.4	7.5	7.3	7.2	7.3	7.4	7.1	7.3	---	---	---
27	7.7	7.3	7.4	7.3	7.2	7.2	7.3	7.2	7.2	---	---	---
28	7.6	7.3	7.4	7.3	7.2	7.2	7.3	7.2	7.2	---	---	---
29	7.7	7.3	7.5	7.3	7.2	7.2	7.3	7.2	7.2	---	---	---
30	7.6	7.3	7.4	7.3	7.2	7.3	7.3	7.2	7.2	---	---	---
31	7.5	7.3	7.4	---	---	---	7.4	7.2	7.3	---	---	---
MONTH	7.7	7.1	7.4	7.5	7.1	7.2	7.5	7.1	7.3	7.5	7.3	7.4

01464600 DELAWARE RIVER AT BRISTOL, PA-BURLINGTON, NJ BRIDGE--Continued

PH (UNITS), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	6.8	6.7	6.8	---	---	---	6.3	6.2	6.2
2	7.5	7.4	---	---	---	---	---	---	---	6.2	6.2	6.2
3	---	---	---	---	---	---	---	---	---	6.2	6.2	6.2
4	---	---	---	---	---	---	6.9	6.6	6.6	6.2	6.2	6.2
5	---	---	---	---	---	---	6.7	6.7	---	6.3	6.2	6.2
6	---	---	---	---	---	---	---	---	---	6.4	6.3	6.3
7	---	---	---	---	---	---	---	---	---	6.4	6.4	6.4
8	---	---	---	7.0	6.5	6.6	---	---	---	6.4	6.4	6.4
9	---	---	---	6.6	6.4	6.5	---	---	---	6.5	6.3	6.3
10	---	---	---	6.7	6.5	6.6	---	---	---	6.5	6.4	6.5
11	---	---	---	6.7	6.6	6.6	---	---	---	6.4	6.3	6.4
12	---	---	---	6.7	6.6	6.7	---	---	---	6.3	6.2	6.2
13	---	---	---	---	---	---	---	---	---	6.2	6.1	6.1
14	---	---	---	7.2	6.7	---	---	---	---	6.1	6.0	6.0
15	---	---	---	---	---	---	---	---	---	6.1	6.0	6.1
16	---	---	---	---	---	---	---	---	---	6.2	6.1	6.1
17	---	---	---	---	---	---	---	---	---	6.2	6.1	6.2
18	---	---	---	---	---	---	---	---	---	6.2	6.1	6.2
19	---	---	---	---	---	---	---	---	---	6.2	6.2	6.2
20	---	---	---	---	---	---	---	---	---	6.2	6.1	6.2
21	---	---	---	7.1	6.8	---	---	---	---	6.2	6.1	6.2
22	---	---	---	---	---	---	---	---	---	6.4	6.1	6.3
23	---	---	---	---	---	---	7.0	6.6	6.7	6.4	6.4	6.4
24	---	---	---	---	---	---	6.7	6.6	6.6	6.4	6.2	6.4
25	---	---	---	---	---	---	6.6	6.5	6.5	6.3	6.2	6.3
26	---	---	---	---	---	---	6.5	6.5	6.5	6.4	6.3	6.4
27	---	---	---	---	---	---	6.5	6.5	6.5	6.4	6.3	6.4
28	6.9	6.7	6.8	6.7	6.6	---	6.5	6.4	6.4	6.5	6.4	6.4
29	---	---	---	---	---	---	6.5	6.4	6.4	6.6	6.5	6.5
30	---	---	---	---	---	---	6.4	6.3	6.4	6.8	6.6	6.7
31	---	---	---	---	---	---	---	---	---	6.8	6.7	6.8
MONTH	7.5	6.7	6.8	7.2	6.4	6.6	7.0	6.3	6.5	6.8	6.0	6.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.8	6.7	6.8	7.3	7.1	7.2	6.9	6.8	6.8	7.3	7.0	7.1
2	6.8	6.7	6.8	7.3	7.1	7.1	6.9	6.8	6.8	7.2	7.0	7.1
3	6.8	6.7	6.8	7.2	7.0	7.1	---	---	---	7.2	6.9	7.0
4	6.8	6.7	6.8	7.1	6.9	7.0	---	---	---	7.1	6.9	7.0
5	6.8	6.7	6.8	7.2	6.8	7.0	---	---	---	7.1	6.9	7.0
6	6.9	6.7	6.8	7.3	7.0	7.1	---	---	---	7.1	6.9	7.0
7	6.9	6.8	6.8	7.3	7.0	7.1	---	---	---	7.1	6.8	7.0
8	6.9	6.8	6.8	7.4	7.0	7.1	---	---	---	6.9	6.7	6.8
9	6.9	6.8	6.8	7.2	7.0	7.1	---	---	---	6.8	6.7	6.7
10	6.9	6.8	6.8	7.1	7.0	7.0	7.2	6.9	7.1	6.8	6.7	6.7
11	6.8	6.7	6.8	7.1	7.0	7.0	7.1	6.9	7.0	6.8	6.7	6.7
12	6.8	6.7	6.7	7.3	6.9	7.1	7.0	6.9	6.9	6.8	6.7	6.7
13	6.8	6.7	6.7	7.4	7.0	7.2	7.2	6.9	7.0	6.8	6.7	6.7
14	6.7	6.6	6.7	7.2	7.0	7.1	7.3	6.9	7.0	6.8	6.7	6.7
15	6.9	6.7	6.8	7.1	6.9	7.0	7.4	7.0	7.1	6.8	6.7	6.7
16	6.9	6.8	6.8	7.1	6.9	6.9	7.4	7.0	7.2	6.8	6.7	6.7
17	6.9	6.8	6.9	7.0	6.8	6.9	7.5	7.0	7.3	6.8	6.7	6.7
18	6.9	6.6	6.8	6.9	6.8	6.8	7.3	7.0	7.1	6.8	6.7	6.7
19	6.9	6.8	6.8	6.9	6.6	6.7	7.3	6.9	7.1	6.9	6.7	6.8
20	6.9	6.8	6.9	6.8	6.7	6.7	7.4	7.0	7.1	7.0	6.8	6.9
21	6.9	6.8	6.9	6.7	6.6	6.6	7.4	7.0	7.1	6.9	6.8	6.8
22	6.9	6.8	6.9	6.7	6.6	6.6	7.4	7.0	7.1	6.9	6.7	6.8
23	7.0	6.8	6.9	6.6	6.6	6.6	7.3	7.0	7.2	6.9	6.8	6.9
24	7.0	6.8	6.9	6.7	6.6	6.6	7.2	7.0	7.1	6.9	6.8	6.8
25	7.0	6.8	6.9	6.7	6.6	6.6	7.2	7.0	7.1	6.9	6.8	6.9
26	6.9	6.6	6.8	6.8	6.6	6.7	7.1	7.0	7.0	6.9	6.8	6.8
27	6.9	6.8	6.8	6.9	6.7	6.8	7.2	7.0	7.1	6.9	6.8	6.8
28	7.1	6.8	6.9	7.0	6.7	6.8	7.3	7.0	7.1	6.8	6.8	6.8
29	7.2	7.0	7.1	7.0	6.8	6.8	7.2	7.0	7.1	6.8	6.7	6.7
30	7.3	7.0	7.1	6.9	6.8	6.8	7.3	7.0	7.1	6.7	6.7	6.7
31	---	---	---	6.9	6.8	6.8	7.4	7.0	7.1	---	---	---
MONTH	7.3	6.6	6.8	7.4	6.6	6.9	7.5	6.8	7.1	7.3	6.7	6.8

01464600 DELAWARE RIVER AT BRISTOL, PA-BURLINGTON, NJ BRIDGE--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.5	20.0	20.0	14.5	14.0	14.0	7.5	6.0	6.5	2.5	1.5	2.0
2	20.5	20.0	20.0	14.5	13.5	14.0	7.0	5.5	6.0	3.5	2.0	2.5
3	20.0	19.5	20.0	14.5	13.5	14.0	6.0	5.0	6.0	---	---	---
4	20.0	19.0	19.5	14.0	13.5	14.0	6.5	5.5	6.0	---	---	---
5	19.5	19.0	19.5	14.0	13.5	13.5	7.0	6.0	6.5	---	---	---
6	19.5	19.0	19.5	14.0	13.0	13.5	6.5	6.0	6.0	---	---	---
7	19.0	18.5	19.0	14.0	13.0	13.5	7.0	6.0	6.5	---	---	---
8	---	---	---	13.5	12.5	13.0	7.5	6.5	7.0	---	---	---
9	---	---	---	13.5	12.5	13.0	7.5	7.5	7.5	---	---	---
10	---	---	---	13.0	12.5	13.0	---	---	---	---	---	---
11	---	---	---	13.0	12.5	13.0	---	---	---	---	---	---
12	18.0	17.0	17.5	13.0	12.5	12.5	---	---	---	---	---	---
13	18.0	17.0	17.5	13.0	12.0	12.5	4.0	2.5	3.5	---	---	---
14	18.0	17.5	17.5	12.5	12.0	12.5	3.5	2.5	2.5	---	---	---
15	17.5	17.0	17.0	13.0	12.5	12.5	4.0	2.5	2.5	---	---	---
16	17.0	16.5	17.0	13.0	12.0	12.5	4.0	2.5	2.5	---	---	---
17	17.0	16.5	16.5	12.5	12.0	12.0	3.5	2.5	3.0	---	---	---
18	17.0	16.5	16.5	13.0	12.0	12.5	3.0	2.5	2.5	---	---	---
19	16.5	15.5	16.0	12.5	12.0	12.0	3.5	2.5	2.5	---	---	---
20	16.0	15.0	16.0	12.0	11.5	12.0	4.0	2.5	2.5	---	---	---
21	16.0	15.0	15.5	12.0	11.5	11.5	4.0	2.5	3.0	---	---	---
22	15.5	14.5	15.0	11.5	11.0	11.0	3.5	2.5	2.5	---	---	---
23	16.0	15.0	15.0	11.0	10.5	10.5	3.0	2.5	2.5	1.0	.5	1.0
24	15.5	14.5	15.0	11.0	10.5	10.5	3.0	2.5	2.5	1.0	.5	---
25	15.0	14.5	14.5	10.5	9.5	10.0	3.0	2.5	3.0	---	---	---
26	15.0	14.5	14.5	10.0	9.0	9.0	3.0	2.5	2.5	---	---	---
27	15.0	14.5	15.0	9.0	8.0	8.5	3.0	2.0	2.5	---	---	---
28	15.0	14.5	14.5	8.5	7.5	8.0	2.5	1.5	2.0	---	---	---
29	15.0	14.5	14.5	8.0	7.0	7.5	2.0	1.5	1.5	---	---	---
30	14.5	14.0	14.5	8.0	6.5	7.5	2.0	1.0	1.5	---	---	---
31	14.5	14.0	14.5	---	---	---	2.0	1.0	1.5	---	---	---
MONTH	20.5	14.0	16.5	14.5	6.5	12.0	7.5	1.0	3.5	3.5	.5	2.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	3.0	2.5	2.5	---	---	---	16.0	15.5	16.0
2	2.5	2.5	---	---	---	---	---	---	---	16.0	15.5	16.0
3	---	---	---	---	---	---	---	---	---	16.0	16.0	16.0
4	---	---	---	---	---	---	10.5	10.0	10.5	16.5	16.0	16.0
5	---	---	---	---	---	---	10.0	10.0	---	16.5	16.0	16.0
6	---	---	---	---	---	---	---	---	---	16.5	16.0	16.0
7	---	---	---	---	---	---	---	---	---	16.5	16.0	16.0
8	---	---	---	4.5	4.0	4.5	---	---	---	17.0	16.0	16.5
9	---	---	---	5.0	4.5	5.0	---	---	---	18.5	17.0	17.5
10	---	---	---	5.5	5.0	5.5	---	---	---	20.0	18.0	18.5
11	---	---	---	6.0	5.0	5.5	---	---	---	21.0	19.0	20.0
12	---	---	---	5.0	5.0	5.0	---	---	---	21.5	20.0	21.0
13	---	---	---	---	---	---	---	---	---	21.5	20.5	21.5
14	---	---	---	5.5	5.0	---	---	---	---	21.5	20.5	21.5
15	---	---	---	---	---	---	---	---	---	21.0	20.5	21.0
16	---	---	---	---	---	---	---	---	---	21.0	20.0	20.5
17	---	---	---	---	---	---	---	---	---	20.5	20.0	20.0
18	---	---	---	---	---	---	---	---	---	20.0	19.5	20.0
19	---	---	---	---	---	---	---	---	---	20.0	19.5	19.5
20	---	---	---	---	---	---	---	---	---	19.5	19.0	19.5
21	---	---	---	8.0	7.0	---	---	---	---	19.5	18.5	19.0
22	---	---	---	---	---	---	---	---	---	19.5	18.5	19.0
23	---	---	---	---	---	---	13.0	13.0	13.0	19.0	18.5	19.0
24	---	---	---	---	---	---	14.0	13.0	13.5	20.0	19.0	19.0
25	---	---	---	---	---	---	15.0	13.5	14.5	19.5	17.5	18.5
26	---	---	---	---	---	---	15.5	14.5	15.0	18.0	16.5	17.0
27	---	---	---	---	---	---	16.5	15.0	15.5	16.5	15.5	16.0
28	2.5	2.0	2.5	8.5	8.0	---	16.5	16.0	16.0	15.5	14.5	15.0
29	---	---	---	---	---	---	16.5	15.5	16.0	15.5	14.5	15.0
30	---	---	---	---	---	---	16.0	15.5	15.5	16.0	15.0	15.5
31	---	---	---	---	---	---	---	---	---	17.0	16.0	16.5
MONTH	2.5	2.0	2.5	8.5	2.5	4.5	16.5	10.0	14.5	21.5	14.5	18.0

01464600 DELAWARE RIVER AT BRISTOL, PA-BURLINGTON, NJ BRIDGE--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.0	17.0	17.5	24.5	23.5	24.0	28.5	28.0	28.0	27.5	26.5	27.0
2	18.5	17.5	18.0	24.5	24.0	24.0	28.5	28.0	28.0	27.5	26.5	27.0
3	19.0	18.5	18.5	25.0	23.5	24.0	---	---	---	27.5	27.0	27.0
4	19.0	18.5	18.5	24.5	23.5	24.0	---	---	---	28.0	27.0	27.5
5	19.0	18.5	18.5	24.0	23.0	23.5	---	---	---	28.0	27.0	27.5
6	20.0	19.0	19.5	23.5	23.0	23.0	---	---	---	27.5	26.5	27.0
7	21.0	19.5	20.5	23.5	23.0	23.0	---	---	---	27.5	25.0	26.5
8	21.5	20.5	21.0	23.5	23.0	23.0	---	---	---	26.0	24.0	25.0
9	22.0	21.5	22.0	23.5	23.0	23.5	---	---	---	24.0	23.0	23.5
10	23.0	22.0	22.5	23.5	23.0	23.5	28.5	28.0	28.5	23.0	22.0	23.0
11	23.0	22.5	22.5	24.0	23.5	23.5	28.5	27.5	28.0	23.0	22.0	22.5
12	23.0	21.5	22.0	24.5	23.5	24.0	28.0	26.0	27.0	22.5	21.5	22.0
13	22.0	20.5	21.5	25.0	24.0	24.5	26.5	25.5	26.0	22.5	22.0	22.0
14	21.5	20.5	21.0	25.0	24.5	25.0	26.0	24.5	25.0	22.5	22.0	22.0
15	21.5	20.5	21.0	25.5	25.0	25.5	24.5	22.5	23.5	22.5	22.0	22.0
16	21.5	21.0	21.0	26.5	25.5	26.0	23.5	22.0	22.5	22.5	22.0	22.5
17	22.0	21.5	21.5	27.5	25.5	26.5	23.0	22.0	22.5	23.0	22.0	22.5
18	23.0	22.0	22.5	27.5	26.5	27.0	23.0	22.0	22.0	22.5	22.0	22.5
19	23.0	22.5	22.5	27.0	27.0	27.0	22.5	21.5	22.0	22.5	22.0	22.5
20	23.5	22.5	23.0	27.0	26.5	27.0	23.0	22.0	22.5	22.0	21.5	22.0
21	24.0	23.0	23.5	27.0	26.0	26.5	23.0	22.0	22.5	21.5	21.0	21.5
22	24.0	23.5	23.5	26.5	26.0	26.5	23.0	22.5	22.5	21.5	20.5	21.0
23	24.0	23.5	23.5	26.5	26.0	26.5	23.0	22.5	23.0	20.5	18.5	19.5
24	24.0	23.5	23.5	26.5	26.0	26.5	23.5	23.0	23.0	19.0	18.0	18.5
25	24.0	23.0	23.5	27.0	26.5	26.5	24.0	23.5	23.5	18.5	18.0	18.0
26	24.0	23.0	23.5	27.0	26.5	27.0	24.5	24.0	24.0	18.5	17.5	18.0
27	24.0	23.5	23.5	27.5	27.0	27.0	25.0	24.0	24.5	18.5	18.0	18.0
28	24.0	23.0	23.5	28.0	27.0	27.5	26.0	24.5	25.0	18.5	18.0	18.0
29	24.0	23.5	23.5	28.0	27.5	27.5	26.0	25.0	25.5	18.5	18.0	18.5
30	24.0	23.5	23.5	28.0	27.0	27.5	27.0	25.5	26.0	19.0	18.5	19.0
31	---	---	---	28.5	27.0	28.0	27.5	26.0	26.5	---	---	---
MONTH	24.0	17.0	21.5	28.5	23.0	25.5	28.5	21.5	24.5	28.0	17.5	22.5

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.4	7.5	8.0	9.6	8.6	9.1	10.8	9.9	10.3	12.5	12.2	12.3
2	8.5	7.2	7.9	9.8	8.6	9.2	10.9	10.3	10.5	12.6	12.3	12.5
3	8.3	7.5	7.8	9.6	8.8	9.2	11.2	10.6	10.8	---	---	---
4	7.7	6.9	7.3	9.2	8.6	9.0	11.0	10.4	10.7	---	---	---
5	7.2	6.6	6.9	9.1	8.5	8.7	11.1	10.6	10.8	---	---	---
6	7.6	6.4	6.9	9.1	8.4	8.6	11.3	10.9	11.1	---	---	---
7	7.5	6.9	7.2	9.0	8.4	8.6	11.1	10.8	11.0	---	---	---
8	---	---	---	8.7	8.4	8.5	10.8	10.3	10.6	---	---	---
9	---	---	---	9.3	8.2	8.7	10.3	10.2	10.2	---	---	---
10	---	---	---	9.3	8.7	8.9	---	---	---	---	---	---
11	---	---	---	9.3	8.6	8.9	---	---	---	---	---	---
12	9.1	8.3	8.7	9.2	8.6	8.9	---	---	---	---	---	---
13	9.0	8.2	8.5	8.8	8.4	8.6	12.6	11.9	12.2	---	---	---
14	8.9	8.0	8.4	8.9	8.1	8.5	12.9	12.2	12.6	---	---	---
15	8.8	7.8	8.3	9.0	8.3	8.6	12.8	12.5	12.6	---	---	---
16	8.6	7.8	8.2	9.0	8.5	8.7	12.6	12.4	12.5	---	---	---
17	8.8	7.6	8.1	8.7	8.3	8.5	12.6	12.3	12.5	---	---	---
18	8.7	7.8	8.2	9.8	8.2	8.7	12.6	12.4	12.5	---	---	---
19	8.5	7.7	8.0	9.6	8.6	8.9	12.6	12.4	12.5	---	---	---
20	8.7	7.8	8.2	9.4	8.6	8.9	12.4	12.1	12.3	---	---	---
21	8.9	7.9	8.3	9.0	8.5	8.7	12.2	12.0	12.1	---	---	---
22	9.1	8.2	8.6	8.9	8.4	8.6	12.3	12.1	12.2	---	---	---
23	9.3	8.4	8.7	8.6	8.3	8.5	12.3	12.1	12.2	12.6	12.4	12.5
24	9.3	8.1	8.6	8.9	8.2	8.5	12.2	12.0	12.1	12.7	12.5	---
25	9.1	8.2	8.7	9.2	8.5	8.8	12.4	12.0	12.1	---	---	---
26	9.8	8.2	9.2	9.5	8.9	9.2	12.5	12.1	12.3	---	---	---
27	10.3	8.8	9.4	9.4	9.1	9.3	12.4	12.2	12.3	---	---	---
28	10.1	8.8	9.5	9.8	9.1	9.4	12.4	12.2	12.3	---	---	---
29	10.3	8.7	9.5	10.1	9.5	9.7	12.4	12.1	12.3	---	---	---
30	10.0	8.6	9.4	10.5	9.6	10.0	12.5	12.1	12.2	---	---	---
31	9.8	8.5	9.2	---	---	---	12.6	12.1	12.3	---	---	---
MONTH	10.3	6.4	8.4	10.5	8.1	8.9	12.9	9.9	11.8	12.7	12.2	12.4

01464600 DELAWARE RIVER AT BRISTOL, PA-BURLINGTON, NJ BRIDGE--Continued

DISSOLVED OXYGEN (D)), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	12.4	12.1	12.3	---	---	---	9.7	9.3	9.5
2	12.9	12.8	---	---	---	---	---	---	---	9.8	9.4	9.5
3	---	---	---	---	---	---	---	---	---	9.6	9.3	9.4
4	---	---	---	---	---	---	10.2	10.1	10.2	9.6	9.3	9.4
5	---	---	---	---	---	---	10.3	10.2	---	9.8	9.3	9.5
6	---	---	---	---	---	---	---	---	---	10.2	9.5	9.7
7	---	---	---	---	---	---	---	---	---	10.2	9.7	10.0
8	---	---	---	12.2	11.8	12.1	---	---	---	10.3	9.9	10.0
9	---	---	---	12.2	11.9	12.1	---	---	---	10.2	9.6	9.8
10	---	---	---	12.1	11.8	11.9	---	---	---	9.8	9.1	9.5
11	---	---	---	11.9	11.7	11.8	---	---	---	9.3	8.3	8.8
12	---	---	---	11.8	11.7	11.7	---	---	---	8.7	7.5	8.0
13	---	---	---	---	---	---	---	---	---	7.7	6.8	7.3
14	---	---	---	12.3	12.0	---	---	---	---	7.0	6.4	6.7
15	---	---	---	---	---	---	---	---	---	6.7	6.1	6.4
16	---	---	---	---	---	---	---	---	---	7.3	6.4	6.9
17	---	---	---	---	---	---	---	---	---	7.9	6.8	7.4
18	---	---	---	---	---	---	---	---	---	7.6	7.2	7.3
19	---	---	---	---	---	---	---	---	---	7.2	6.8	7.1
20	---	---	---	---	---	---	---	---	---	7.0	6.6	6.8
21	---	---	---	11.7	11.4	---	---	---	---	6.8	6.3	6.5
22	---	---	---	---	---	---	---	---	---	7.4	6.3	6.8
23	---	---	---	---	---	---	10.7	10.2	10.3	7.3	6.8	7.0
24	---	---	---	---	---	---	10.5	10.1	10.3	7.3	6.8	7.0
25	---	---	---	---	---	---	10.2	9.7	9.9	7.9	7.0	7.4
26	---	---	---	---	---	---	9.8	9.3	9.5	8.5	7.4	8.0
27	---	---	---	---	---	---	9.6	8.6	9.1	8.8	8.3	8.6
28	12.4	12.2	12.3	11.2	11.0	---	8.9	8.1	8.5	9.1	8.7	8.9
29	---	---	---	---	---	---	8.9	8.1	8.5	9.2	8.9	9.1
30	---	---	---	---	---	---	9.5	8.8	9.2	9.4	8.8	9.1
31	---	---	---	---	---	---	---	---	---	9.2	8.8	9.0
MONTH	12.9	12.2	12.3	12.4	11.0	12.0	10.7	8.1	9.5	10.3	6.1	8.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.0	8.7	8.9	8.2	6.7	7.2	5.5	4.1	4.5	7.3	5.4	6.5
2	8.9	8.7	8.8	8.0	6.1	6.7	4.9	4.1	4.3	6.8	5.4	6.3
3	8.8	8.5	8.6	8.1	5.9	6.8	---	---	---	6.8	5.1	6.1
4	8.7	8.4	8.5	6.9	6.0	6.3	---	---	---	6.4	4.7	5.7
5	8.7	8.4	8.5	7.3	5.2	6.3	---	---	---	6.5	4.5	5.7
6	9.0	8.2	8.6	8.2	5.8	7.0	---	---	---	6.3	5.0	5.7
7	8.8	8.4	8.6	8.4	6.1	7.2	---	---	---	6.3	4.5	5.3
8	8.9	8.3	8.6	9.2	6.5	7.6	---	---	---	5.9	4.9	5.4
9	9.0	8.3	8.6	8.9	7.0	7.8	---	---	---	6.6	5.2	5.9
10	8.9	8.3	8.6	8.6	7.3	7.9	7.7	5.8	6.9	7.0	5.8	6.5
11	8.5	7.9	8.1	8.6	7.4	7.8	7.2	5.4	6.2	7.1	6.3	6.8
12	8.2	7.6	7.9	8.9	7.2	7.9	5.9	4.5	5.3	7.4	6.4	6.9
13	7.9	7.4	7.6	9.1	7.5	8.1	6.9	4.2	5.3	7.4	6.6	6.9
14	7.9	7.1	7.5	8.1	7.1	7.5	6.9	5.1	5.8	7.2	6.6	6.9
15	8.2	7.2	7.7	7.3	6.5	6.9	7.8	5.6	6.3	7.7	6.6	7.0
16	8.1	7.3	7.7	7.1	5.9	6.3	8.0	5.9	6.9	7.5	6.3	6.9
17	7.8	7.2	7.6	6.6	5.2	5.9	8.8	6.3	7.5	7.3	6.0	6.6
18	7.6	7.1	7.3	5.6	4.8	5.1	7.9	6.6	7.1	6.9	5.9	6.3
19	7.2	6.6	6.8	4.9	4.0	4.5	8.3	6.0	7.0	7.5	6.1	6.7
20	7.4	6.1	6.7	4.7	3.9	4.2	8.5	6.4	7.2	6.7	4.4	5.5
21	6.9	6.1	6.5	4.4	3.8	4.0	8.6	6.4	7.2	4.9	4.4	4.6
22	6.7	6.0	6.2	4.7	3.6	4.0	8.6	6.4	7.3	5.0	4.1	4.4
23	6.4	5.8	6.1	4.3	3.6	3.9	8.1	6.6	7.4	5.8	4.8	5.2
24	6.2	5.6	5.8	4.4	3.6	4.0	7.5	6.5	7.0	5.9	5.2	5.5
25	6.4	5.4	5.8	5.1	3.6	4.3	7.4	6.0	6.7	6.2	5.5	5.9
26	6.4	5.4	5.8	5.2	4.1	4.6	7.1	5.8	6.4	6.3	5.7	6.0
27	6.8	5.6	6.1	5.9	4.3	4.9	7.4	5.8	6.5	6.2	5.8	6.0
28	7.2	5.9	6.5	6.4	4.7	5.2	7.3	5.8	6.4	6.1	5.8	5.9
29	7.7	6.4	6.9	6.2	4.6	5.0	6.8	5.7	6.2	5.9	5.6	5.7
30	7.9	6.6	7.2	5.4	4.3	4.7	7.4	5.4	6.3	5.6	5.5	5.6
31	---	---	---	5.2	3.9	4.5	7.8	5.3	6.5	---	---	---
MONTH	9.0	5.4	7.5	9.2	3.6	5.9	8.8	4.1	6.4	7.7	4.1	6.0

01465500 NESHAMINY CREEK NEAR LANGHORNE, PA

LOCATION.--Lat 40°10'26", long 74°57'26", Bucks County, Hydrologic Unit 02040201, on left bank at bridge on State Highway 213, 0.3 mi (0.5 km) downstream from Mill Creek, and 1.7 mi (2.7 km) west of Langhorne.

DRAINAGE AREA.--210 mi² (544 km²).

PERIOD OF RECORD.--October 1934 to current year.

REVISED RECORDS.--WSP 1332: 1949. WSP 1432: 1936-37.

GAGE.--Water-stage recorder. Datum of gage is 40.57 ft (12.366 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Several observations of water temperature were made during the year. Some regulation at low flow by mills above station. Flow regulated by upstream reservoirs on Little Neshaminy Creek, Robin Run, Pine Run, North Branch Neshaminy Creek, and Core Creek (combined flood control capacity, about 9,560 acre-ft (11.8 hm³)). Occasional regulation by Springfield Lake, capacity, 650 mil gal (2.460 hm³), completed in 1934; no significant regulation except during period May 1934 to January 1944, when the lake was filling, and in September 1949, July 1954, July through October 1957, September, October 1961. Interceptor sewer installed along left bank in May, June 1966.

AVERAGE DISCHARGE.--45 years, 291 ft³/s (8.241 m³/s), 18.79 in/yr (477 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,300 ft³/s (1,400 m³/s) Aug. 19, 1955, gage height, 22.84 ft (6.962 m), from floodmarks, from rating curve extended above 4,700 ft³/s (133 m³/s) on basis of contracted-opening measurement at gage height 15.94 ft (4.859 m), and slope-area measurement of peak flow; minimum, 1.9 ft³/s (0.054 m³/s) Sept. 8, 1957; minimum gage height, 0.35 ft (0.107 m) Sept. 1, 2, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 23, 1933, reached a stage of 17.3 ft (5.27 m), from floodmark, discharge, 30,000 ft³/s (850 m³/s), from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,600 ft³/s (102 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Dec. 9	1730	6,110	173	8.79	2.527	Mar. 24	unknown	unknown		unknown	
Dec. 25	0800	4,750	135	7.25	2.210	Apr. 14	unknown	unknown		unknown	
Jan. 2	2200	5,610	159	7.92	2.414	May 24	2230	5,480	155	7.82	2.384
Jan. 8	1200	7,180	203	9.04	2.755	June 11	1930	3,880	110	6.52	1.987
Jan. 21	1300	12,200	346	11.84	3.609	July 17	0030	4,500	127	7.04	2.146
Jan. 25	0330	*16,400	464	*13.64	4.157	July 30	0600	5,270	149	7.66	2.335
Feb. 25	0600	10,700	303	11.11	3.386	Sept. 6	1500	6,760	191	8.76	2.670
Feb. 26	1000	12,600	357	12.06	3.676	Sept. 22	1100	8,880	251	10.11	3.082
Mar. 6	unknown	unknown		unknown		Sept. 30	1130	5,840	165	8.10	2.469

Minimum discharge, 36 ft³/s (1.02 m³/s) Nov. 13, gage height, 0.80 ft (0.244 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	40	198	325	476	895	200	234	492	289	170	75
2	71	40	141	2650	391	760	220	224	360	575	185	69
3	52	40	133	2210	378	685	300	246	356	237	227	71
4	54	40	229	571	366	585	250	679	680	179	428	71
5	59	40	498	430	307	650	350	534	555	198	212	167
6	65	40	272	377	280	3000	300	379	404	160	157	3050
7	61	40	172	407	250	1000	270	308	344	135	135	765
8	57	39	153	4960	250	700	250	272	308	120	120	293
9	45	39	3310	1330	250	600	900	244	268	111	106	212
10	43	39	1800	629	230	530	800	230	244	104	99	176
11	42	39	475	486	200	984	350	248	1290	104	125	157
12	42	39	338	404	200	570	300	230	1060	99	452	145
13	40	37	287	430	200	428	250	197	645	93	780	130
14	42	39	257	739	200	392	2000	182	376	95	304	157
15	40	40	221	479	200	360	600	173	296	336	212	244
16	50	42	201	343	200	248	450	165	265	660	173	157
17	54	42	195	302	200	237	400	148	287	2070	147	125
18	59	151	182	276	200	254	350	155	247	453	137	113
19	59	168	165	250	250	229	330	443	221	510	160	113
20	48	112	154	432	350	210	300	470	215	251	185	106
21	45	108	306	8720	450	200	280	237	215	194	125	113
22	43	118	313	2630	610	200	270	182	182	179	115	5030
23	42	112	209	759	781	200	260	1000	472	155	104	1230
24	43	126	206	3710	3070	1500	250	3500	247	218	120	513
25	39	124	2420	7880	7440	500	250	2620	185	206	150	357
26	40	105	583	1620	8310	300	380	875	162	157	115	291
27	50	100	374	942	2240	250	304	540	150	182	93	243
28	91	104	283	755	1110	230	279	540	140	140	93	214
29	63	114	251	656	---	250	262	550	200	120	106	219
30	47	249	220	576	---	230	248	805	188	1530	102	2150
31	43	---	272	518	---	210	---	650	---	254	87	---
TOTAL	1579	2366	14768	46792	29389	17378	11913	17260	11014	10110	5684	16756
MEAN	50.9	78.9	476	1509	1050	561	397	557	367	326	183	559
MAX	91	249	3310	8720	8310	3000	2000	3500	1290	2070	780	5030
MIN	39	37	133	250	200	200	200	148	140	93	87	69
CFSM	.24	.38	2.27	7.19	5.00	2.67	1.89	2.65	1.75	1.55	.87	2.66
IN.	.28	.42	2.62	8.29	5.21	3.08	2.11	3.06	1.95	1.79	1.01	2.97

CAL YR 1978 TOTAL 139539 MEAN 382 MAX 10600 MIN 37 CFSM 1.82 IN 24.72
WTR YR 1979 TOTAL 185009 MEAN 507 MAX 8720 MIN 37 CFSM 2.41 IN 32.77

POQUESSING CREEK BASIN

01465770 POQUESSING CREEK AT TREVOSE ROAD, PHILADELPHIA, PA

LOCATION.--Lat 40°07'55", long 74°59'40", Bucks County, Hydrologic Unit 02040202, on right bank 30 ft (9 m) downstream from Trevose Road Bridge, 1 mi (1.6 km) southwest of Trevose.

DRAINAGE AREA.--5.08 mi^2 (13.16 km^2).

PERIOD OF RECORD.--July 1964 to current year.

REVISED RECORDS.--WDR PA-72: 1970(M), 1971(P). WDR PA-75-1: 1971(P), 1972(P), 1973(P), 1974(P). WDR PA-76-1: 1972(M).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 120 ft (37 m), from topographic map.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years, 7.68 ft^3/s (0.217 m^3/s), 20.53 in/yr (521 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,100 ft^3/s (59.5 m^3/s) Aug. 28, 1971, gage height, 8.38 ft (2.554 m) in gage well, 9.10 ft (2.774 m) outside, from floodmark, from rating curve extended above 800 ft^3/s (22.7 m^3/s) on basis of contracted-opening measurement of peak flow; minimum daily, 0.1 ft^3/s (0.003 m^3/s) Aug. 31, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft^3/s (11.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 9	0630	412	11.7	4.64	1.414	May 23	2245	1,000	28.3	6.85	2.088
Jan. 21	0415	802	22.7	6.27	1.911	July 30	0330	*1,400	39.6	*7.62	2.322
Jan. 24	1945	674	19.1	5.84	1.780	Sept. 6	0600	502	14.2	5.11	1.558
Feb. 26	0345	646	18.3	5.73	1.747	Sept. 14	1930	456	12.9	4.88	1.487

Minimum discharge, 1.6 ft^3/s (0.045 m^3/s) Nov. 1, gage height, 1.38 ft (0.421 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	1.7	2.9	8.0	5.8	9.0	4.8	4.1	5.6	13	4.2	2.5
2	2.0	1.8	2.6	73	5.4	8.0	5.4	4.0	5.1	4.6	13	3.8
3	1.9	1.8	2.6	10	5.1	7.5	7.2	4.5	16	3.5	7.7	2.8
4	3.6	1.9	13	4.7	5.0	7.1	7.6	4.4	26	7.7	8.4	2.7
5	2.0	1.9	18	4.1	4.7	8.7	7.2	4.0	7.4	4.0	3.8	4.0
6	2.5	1.8	3.6	4.5	4.7	72	5.1	3.8	5.9	3.4	3.4	84
7	1.8	1.9	3.2	41	4.9	14	4.8	3.8	8.9	3.3	3.0	3.4
8	1.8	2.0	8.7	86	4.9	9.2	4.8	3.8	5.7	3.1	3.0	2.7
9	1.8	1.9	115	8.1	4.7	8.6	24	3.6	4.8	2.9	2.8	2.5
10	1.8	1.9	8.8	5.6	4.5	8.4	11	3.6	4.5	3.0	3.0	2.3
11	1.8	1.9	4.3	4.7	4.3	22	5.5	3.6	78	2.9	9.0	2.3
12	1.9	1.9	3.8	4.2	4.0	9.5	5.4	16	8.7	2.7	35	2.2
13	1.9	1.9	3.6	16	4.5	9.5	5.2	6.4	5.9	2.8	5.4	2.3
14	3.7	1.9	3.2	14	4.0	7.3	43	6.2	5.2	17	3.2	30
15	1.9	2.1	3.2	5.3	4.2	7.4	9.2	4.1	4.8	20	3.0	3.4
16	2.4	3.3	3.0	4.5	4.0	8.0	6.8	3.7	4.6	18	2.8	2.2
17	4.5	4.6	3.4	4.5	4.0	8.2	6.1	3.5	5.3	5.9	2.8	2.0
18	1.9	12	3.2	4.3	4.9	5.9	5.5	14	4.7	6.8	7.0	2.0
19	2.0	2.0	3.1	4.0	8.8	6.4	5.3	32	4.3	3.5	3.8	3.0
20	2.0	1.9	3.5	22	7.8	7.2	5.0	7.6	4.1	2.9	5.7	2.0
21	1.9	1.7	10	277	12	6.7	4.8	4.8	4.0	4.1	3.6	20
22	1.9	1.7	3.3	11	20	6.0	4.6	4.2	8.8	2.8	2.8	48
23	1.9	2.3	2.9	7.3	13	5.3	4.6	132	5.6	2.7	3.0	5.2
24	1.9	3.4	23	141	149	28	4.5	88	3.9	4.4	13	2.8
25	1.9	1.8	37	25	106	8.0	4.5	44	3.7	2.6	8.3	2.7
26	2.0	2.0	4.8	11	134	6.2	21	8.7	3.5	3.7	3.6	2.7
27	4.8	2.8	4.0	8.8	22	5.8	9.9	6.6	3.6	3.9	3.6	2.5
28	1.8	7.4	3.5	8.2	10	5.5	5.2	8.0	4.3	8.8	3.2	2.5
29	1.7	8.0	3.3	7.7	---	6.4	4.8	9.9	9.2	5.7	12	4.9
30	1.7	10	3.1	6.5	---	5.4	4.4	6.4	5.0	272	3.8	62
31	1.7	---	4.1	6.0	---	5.0	---	6.2	---	5.4	2.5	---
TOTAL	70.6	93.2	311.7	838.0	566.2	332.2	247.2	455.5	267.1	447.1	189.4	315.4
MEAN	2.28	3.11	10.1	27.0	20.2	10.7	8.24	14.7	8.90	14.4	6.11	10.5
MAX	4.8	12	115	277	149	72	43	132	78	272	35	84
MIN	1.7	1.7	2.6	4.0	4.0	5.0	4.4	3.5	3.5	2.6	2.5	2.0
CFSM	.45	.61	1.99	5.32	3.98	2.11	1.62	2.89	1.75	2.84	1.20	2.07
IN.	.52	.68	2.28	6.14	4.15	2.43	1.81	3.33	1.96	3.27	1.39	2.31

CAL YR 1978 TOTAL 3265.5 MEAN 8.95 MAX 209 MIN 1.7 CFSM 1.76 IN 23.91
WTR YR 1979 TOTAL 4133.6 MEAN 11.3 MAX 277 MIN 1.7 CFSM 2.22 IN 30.26

01465798 POQUESSING CREEK AT GRANT AVENUE, PHILADELPHIA, PA

LOCATION.--Lat 40°03'25", long 74°59'08", Philadelphia County, Hydrologic Unit 02040202, on right bank 600 ft (183 m) upstream from Delaware River Expressway and 3,000 ft (914 m) upstream from mouth in northeast Philadelphia.

DRAINAGE AREA.--21.4 mi^2 (55.4 km^2).

PERIOD OF RECORD.--July 1965 to September 1970, July 1974 to current year.

GAGE.--Water-stage recorder and concrete low-water control. Datum of gage is 2.68 ft (0.817 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years (Water years 1966-70, 1975-79), 32.7 ft^3/s (0.926 m^3/s), 20.76 in/yr (527 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,660 ft^3/s (132 m^3/s) Aug. 27, 1967, gage height, 10.98 ft (3.347 m), from rating curve extended above 550 ft^3/s (15.6 m^3/s); minimum, 1.1 ft^3/s (0.031 m^3/s) Aug. 29, 1966, gage height, 2.43 ft (0.741 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 28, 1971 reached a stage of 13.05 ft (3.978 m), from floodmark, discharge, 7,380 ft^3/s (209 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft^3/s (22.7 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 9	0915	1,980	56.1	8.12	2.475	June 22	2300	985	27.9	6.51	1.984
Jan. 8	0045	1,430	40.5	7.31	2.228	July 14	1630	1,420	40.2	7.29	2.222
Jan. 21	0645	*3,990	113	*10.39	3.167	July 15	2000	905	25.6	6.35	1.935
Jan. 24	2115	2,340	66.3	8.61	2.624	July 16	2300	1,840	52.1	7.91	2.411
Feb. 25	0045	1,990	56.4	8.13	2.478	July 24	1630	990	28.0	6.52	1.987
Feb. 26	0530	2,430	68.8	8.73	2.661	July 30	1000	1,880	53.2	7.97	2.429
Mar. 6	1315	1,060	30.0	6.65	2.027	Aug. 3	1730	2,480	70.2	8.79	2.679
May 24	0200	2,980	84.4	9.37	2.856	Sept. 6	0730	1,270	36.0	7.04	2.146
June 12	1100	1,610	45.6	7.58	2.310						

Minimum discharge, 5.0 ft^3/s (0.14 m^3/s) Nov. 26, 27, gage height, 2.72 ft (0.829 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	5.8	8.9	26	21	37	11	9.9	24	12	16	6.6
2	8.5	6.0	7.5	365	19	35	15	9.4	16	30	31	6.0
3	6.6	6.3	6.6	60	19	33	23	9.9	46	9.9	312	8.5
4	16	6.3	64	16	18	33	21	12	181	26	60	5.8
5	9.9	6.3	74	14	16	35	25	9.4	40	18	13	8.9
6	17	6.3	11	16	17	408	12	8.0	22	8.9	10	402
7	6.9	6.3	8.0	159	17	77	11	8.9	20	8.5	9.4	18
8	6.3	6.3	19	509	19	33	10	9.9	87	8.0	8.9	12
9	6.3	6.3	656	33	16	27	100	9.9	18	7.5	8.0	9.4
10	6.3	6.3	51	21	16	26	74	9.4	16	7.5	8.9	8.0
11	6.3	6.3	16	16	15	99	14	9.4	15	8.0	74	7.5
12	6.3	6.3	12	16	14	31	13	87	447	8.0	170	7.5
13	6.3	6.6	11	71	16	28	12	18	23	8.9	39	6.9
14	8.5	6.6	9.4	70	16	29	198	16	21	183	9.9	100
15	6.3	6.9	9.4	21	16	26	32	10	21	128	8.0	34
16	6.6	14	9.4	16	16	25	18	7.5	21	224	7.5	7.5
17	21	16	11	16	14	25	16	6.9	21	142	6.6	6.9
18	6.6	68	7.5	16	13	23	15	68	18	52	20	6.9
19	6.3	9.4	7.5	14	14	22	14	200	14	16	21	9.4
20	6.3	5.8	8.5	50	18	21	14	28	13	12	15	6.0
21	6.0	5.5	43	1560	41	21	13	12	13	15	20	34
22	5.8	5.2	9.9	61	131	19	12	10	88	10	7.2	240
23	5.8	5.8	8.0	28	71	20	12	295	87	9.4	6.3	33
24	6.0	16	68	637	758	141	12	812	13	140	41	10
25	6.6	5.8	214	204	660	29	12	351	12	18	16	9.4
26	6.9	5.2	16	44	772	16	66	42	11	94	12	8.9
27	21	9.4	12	40	119	14	71	29	11	24	7.2	8.9
28	6.3	35	9.9	43	47	13	14	47	11	10	10	7.2
29	5.8	19	9.9	26	---	15	12	27	30	11	61	7.2
30	5.2	57	9.4	23	---	13	9.9	25	12	637	18	33
31	5.8	---	11	22	---	12	---	36	---	26	6.9	---
TOTAL	263.5	372.0	1418.8	4213	2929	1386	881.9	2233.5	1372	1912.6	1049.8	1073.4
MEAN	8.50	12.4	45.8	136	105	44.7	29.4	72.0	45.7	61.7	33.9	35.8
MAX	21	68	656	1560	772	408	198	812	447	637	312	402
MIN	5.2	5.2	6.6	14	13	12	9.9	6.9	11	7.5	6.3	5.8
CFSM	.40	.58	2.14	6.36	4.91	2.09	1.37	3.36	2.14	2.88	1.58	1.67
IN.	.46	.65	2.47	7.32	5.09	2.41	1.53	3.88	2.38	3.32	1.82	1.87

CAL YR 1978 TOTAL 15392.8 MEAN 42.2 MAX 1330 MIN 5.2 CFSM 1.97 IN 26.76
WTR YR 1979 TOTAL 19105.5 MEAN 52.3 MAX 1560 MIN 5.2 CFSM 2.44 IN 33.21

01467030 DELAWARE RIVER AT TORRESDALE INTAKE AT PHILADELPHIA, PA

LOCATION.--Lat 40°01'57", long 74°59'46", Philadelphia County, Hydrologic Unit 02040202, water-quality recorder (40°02'05", 74°59'57") located on right bank in inactive building at Torresdale Filter Plant, 1.7 mi (2.7 km) downstream from Poquessing Creek.

DRAINAGE AREA.--7,781 mi² (20,200 km²).

PERIOD OF RECORD.--August 1949 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: June 1968 to current year.
WATER TEMPERATURES: October 1956 to September 1957, November 1960 to current year.
DISSOLVED OXYGEN: January 1961 to current year.

REMARKS.--Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1809-0.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 865 micromhos Jan. 10, 1977; minimum, 71 micromhos July 24, 1970.
pH: Maximum, 8.1 Dec. 30, 1970; minimum, 4.9 Apr. 5, 1969.
WATER TEMPERATURES: Maximum, 32.5°C July 21, 1977; minimum, freezing point on many days during winter months.
DISSOLVED OXYGEN: Maximum, 14.5 mg/L Feb. 4-5, 1964; minimum, 0.0 mg/L on many days during 1962 and 1965.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 836 micromhos Jan. 13; minimum, 74 micromhos Mar. 8.
pH: Maximum, 7.5 Oct. 24; minimum, 6.2 on many days.
WATER TEMPERATURES: Maximum, 30.5°C Aug. 1, 2, 6; minimum, 0.5°C on many days during February.
DISSOLVED OXYGEN: Maximum, 14.1 mg/L Feb. 14; minimum, 1.2 mg/L July 28.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	247	224	234	258	226	233	280	246	259	256	184	199
2	245	221	231	257	226	233	262	243	251	336	192	207
3	234	218	226	257	225	233	257	239	246	212	162	193
4	274	224	249	260	226	233	318	239	253	197	119	154
5	267	246	255	260	224	233	335	233	248	190	110	124
6	293	247	256	323	224	235	258	233	241	235	110	134
7	280	249	256	269	222	233	249	233	237	441	127	167
8	269	248	255	268	216	231	270	232	241	238	132	167
9	281	250	257	290	215	227	457	153	233	276	151	172
10	298	254	260	242	210	221	232	109	211	241	156	175
11	291	258	265	251	209	221	236	179	199	204	147	162
12	288	262	269	244	208	218	234	169	182	221	146	161
13	299	264	272	238	206	218	306	170	188	836	149	199
14	278	273	---	296	208	222	237	165	183	591	172	225
15	---	---	---	256	210	221	294	162	181	321	177	203
16	---	---	---	236	200	215	224	162	175	281	182	200
17	---	---	---	245	205	216	213	163	171	245	191	209
18	288	270	278	242	207	220	234	167	178	325	202	227
19	288	265	274	---	---	---	234	171	185	314	212	233
20	304	263	273	---	---	---	233	175	187	308	212	233
21	283	260	268	---	---	---	335	176	196	521	127	225
22	288	261	268	---	---	---	239	180	196	232	151	177
23	337	261	271	---	---	---	297	183	197	289	155	197
24	297	259	269	326	255	266	224	189	197	229	163	178
25	293	259	267	326	255	266	223	133	188	167	111	134
26	290	256	267	295	257	265	216	196	204	210	114	138
27	310	256	271	308	256	262	233	200	208	325	112	142
28	282	253	264	379	257	272	237	185	200	288	115	137
29	275	248	258	305	257	268	228	180	194	249	124	141
30	266	230	246	322	251	267	252	177	189	202	132	145
31	256	227	236	---	---	---	226	179	189	195	115	137
MONTH	337	218	259	379	200	237	457	133	207	836	110	177

DELAWARE RIVER BASIN

01467030 DELAWARE RIVER AT TORRESDALE INTAKE AT PHILADELPHIA, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	247	118	137	252	112	132	141	111	118	192	114	141
2	251	127	146	251	127	146	161	113	123	146	108	120
3	229	135	152	252	126	144	259	118	137	219	104	118
4	239	138	153	251	122	142	163	121	130	187	105	120
5	221	109	149	298	121	145	229	125	141	202	88	125
6	226	87	155	304	123	156	185	130	138	166	119	129
7	233	157	172	185	77	117	202	131	143	279	123	139
8	255	161	175	206	74	95	190	130	145	213	134	146
9	245	169	184	242	78	102	259	136	155	206	137	147
10	229	177	190	178	83	100	188	136	147	215	137	147
11	235	184	196	221	90	136	175	137	147	180	140	148
12	233	188	196	258	106	121	179	140	148	176	110	149
13	239	189	201	200	109	125	156	126	138	179	149	155
14	253	197	208	279	105	124	249	121	143	178	153	158
15	238	198	208	175	109	120	166	122	131	180	157	162
16	232	203	210	190	110	127	180	120	132	215	160	168
17	247	207	216	248	119	134	175	122	132	193	166	173
18	264	210	221	185	120	134	176	114	127	233	167	177
19	279	212	226	184	121	136	174	113	123	184	151	171
20	347	212	232	189	123	137	146	105	121	185	165	171
21	383	218	243	190	127	142	166	117	127	199	169	178
22	619	232	309	241	131	147	204	117	130	205	166	179
23	491	244	299	225	135	149	184	120	131	239	166	174
24	490	221	279	241	135	156	178	126	136	254	132	170
25	228	150	192	180	141	150	194	130	142	187	146	162
26	181	89	128	184	145	155	302	135	154	253	126	147
27	236	94	131	199	141	150	195	139	150	215	97	118
28	243	103	121	171	111	136	178	89	134	239	86	101
29	---	---	---	189	103	121	186	140	161	190	84	97
30	---	---	---	174	102	115	219	145	163	258	90	109
31	---	---	---	146	104	113	---	---	---	131	98	104
MONTH	619	87	194	304	74	132	302	89	138	279	84	145

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	190	104	115	240	214	221	240	213	220	247	225	231
2	206	104	128	248	218	227	243	219	227	249	224	229
3	185	108	128	283	227	234	238	191	227	253	226	230
4	189	111	125	254	232	236	238	224	229	242	227	232
5	204	116	131	252	231	237	243	229	234	245	229	234
6	191	125	141	252	234	239	242	231	235	259	138	222
7	181	123	146	253	237	242	266	227	233	229	222	226
8	183	139	147	267	240	245	248	223	231	228	188	215
9	190	142	150	266	170	244	247	226	233	208	167	188
10	192	146	155	255	237	243	267	227	239	183	150	166
11	260	143	158	267	237	246	253	225	236	173	139	150
12	159	142	154	285	242	251	237	218	225	170	134	145
13	188	155	161	266	241	252	220	200	214	181	134	143
14	214	159	167	262	221	241	226	213	217	216	132	145
15	225	161	174	254	223	235	236	215	220	160	131	138
16	224	169	180	251	222	234	237	210	220	149	133	138
17	217	176	184	258	205	230	241	217	222	149	136	141
18	221	178	188	231	221	227	234	216	221	---	---	---
19	220	178	188	243	225	231	234	215	221	183	150	158
20	221	179	186	239	231	234	246	216	226	176	152	159
21	206	179	185	238	225	231	242	220	227	273	155	166
22	418	171	190	240	221	229	240	218	225	229	127	169
23	211	173	189	242	221	229	238	216	223	178	169	173
24	203	186	190	244	208	224	254	214	224	194	162	174
25	208	186	192	237	208	219	243	216	223	181	155	162
26	219	191	198	236	210	221	236	212	220	198	156	162
27	227	193	200	221	197	211	279	217	227	212	156	172
28	239	198	206	239	208	213	264	227	234	280	174	185
29	246	205	213	231	209	215	330	228	241	239	173	184
30	244	209	217	233	180	205	241	225	229	366	110	185
31	---	---	---	219	199	211	263	228	233	---	---	---
MONTH	418	104	170	285	170	231	330	191	227	366	110	180
YEAR	836	74	190									

01467030 DELAWARE RIVER AT TORRESDALE INTAKE AT PHILADELPHIA, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.1	6.8	7.0	7.2	7.0	7.1	7.0	6.9	6.9	6.9	6.6	6.7
2	7.0	6.9	7.0	7.1	7.0	7.1	7.0	6.9	6.9	6.9	6.7	6.8
3	7.0	6.8	7.0	7.1	7.0	7.1	7.0	6.9	6.9	6.9	6.8	6.8
4	7.0	6.7	6.9	7.1	6.9	7.0	7.0	6.8	6.9	6.9	6.5	6.7
5	6.9	6.8	6.9	7.1	6.9	7.0	6.9	6.8	6.9	6.7	6.5	6.5
6	6.9	6.8	6.8	7.1	6.9	7.0	6.9	6.8	6.9	6.6	6.4	6.5
7	6.9	6.7	6.8	7.0	6.9	7.0	6.9	6.7	6.8	6.8	6.5	6.6
8	6.9	6.8	6.8	7.0	6.9	6.9	6.8	6.8	6.8	6.7	6.5	6.6
9	7.0	6.8	6.9	7.0	6.9	6.9	6.8	6.5	6.7	6.7	6.6	6.6
10	7.0	6.8	6.9	7.0	6.9	6.9	6.8	6.7	6.8	6.8	6.6	6.7
11	7.1	6.8	6.9	7.0	6.8	6.9	6.8	6.6	6.8	6.8	6.6	6.7
12	7.0	6.8	6.9	7.0	6.8	6.9	6.8	6.6	6.7	6.7	6.6	6.7
13	7.0	6.8	6.9	7.2	6.8	7.0	6.9	6.5	6.7	6.8	6.7	6.7
14	6.9	6.8	---	7.3	7.0	7.1	6.8	6.7	6.7	6.9	6.7	6.7
15	---	---	---	7.2	7.1	7.1	6.8	6.6	5.7	6.8	6.7	6.8
16	---	---	---	7.2	7.1	7.1	6.8	6.7	6.7	6.8	6.8	6.8
17	---	---	---	7.2	7.0	7.1	6.9	6.7	6.8	6.9	6.8	6.8
18	7.1	6.9	7.0	7.2	7.1	7.1	6.8	6.7	6.8	7.0	6.7	6.8
19	7.1	6.9	7.0	---	---	---	6.9	6.8	6.8	7.0	6.8	6.9
20	7.1	6.9	7.0	---	---	---	6.9	6.6	6.8	6.9	6.8	6.8
21	7.1	6.9	7.0	---	---	---	7.0	6.7	6.8	6.8	6.3	6.7
22	7.1	6.9	7.0	---	---	---	6.9	6.8	6.8	6.8	6.6	6.7
23	7.1	7.0	7.0	---	---	---	6.9	6.8	6.8	6.8	6.6	6.7
24	7.5	6.9	7.1	7.2	7.1	7.1	6.9	6.7	6.8	6.8	6.7	6.7
25	7.2	7.0	7.1	7.2	7.1	7.1	6.9	6.7	6.8	6.8	6.5	6.7
26	7.3	7.0	7.1	7.2	7.1	7.2	6.9	6.8	6.9	6.9	t.5	6.7
27	7.3	6.9	7.1	7.2	7.1	7.2	6.9	6.8	6.9	6.7	6.5	6.6
28	7.2	7.0	7.1	7.1	6.8	7.0	6.9	6.8	6.8	6.7	6.5	6.6
29	7.2	7.0	7.1	7.0	6.9	6.9	6.8	6.7	6.8	6.8	6.6	6.7
30	7.2	6.9	7.1	7.0	6.9	6.9	6.8	6.7	6.7	6.8	6.7	6.7
31	7.2	6.9	7.1	---	---	---	6.8	6.6	6.7	6.8	6.5	6.7
MONTH	7.5	6.7	7.0	7.3	6.8	7.0	7.0	6.5	6.8	7.0	6.3	6.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	6.9	6.7	6.8	6.8	6.6	6.6	6.9	6.7	6.8	6.9	6.8	6.8
2	6.9	6.8	6.8	6.8	6.6	6.7	6.9	6.7	6.8	6.9	6.7	6.8
3	6.9	6.8	6.8	6.8	6.7	6.7	6.9	6.8	6.8	7.3	6.7	6.8
4	7.0	6.8	6.8	6.9	6.7	6.7	7.0	6.8	6.9	7.0	6.7	6.8
5	7.0	6.8	6.9	7.0	6.6	6.8	7.2	6.8	6.9	6.9	6.7	6.8
6	7.1	6.9	6.9	6.9	6.7	6.8	7.0	6.9	6.9	7.0	6.7	6.8
7	6.9	6.9	6.9	6.8	6.4	6.6	7.0	6.8	7.0	7.2	6.8	6.9
8	6.9	6.8	6.9	6.8	6.3	6.5	7.0	6.9	6.9	7.2	6.8	7.0
9	7.0	6.9	6.9	6.7	6.3	6.5	7.0	6.8	6.9	7.2	6.8	7.0
10	6.9	6.9	6.9	6.7	6.5	6.6	7.0	6.9	6.9	7.1	6.8	7.0
11	6.9	6.9	6.9	6.9	6.6	6.6	6.9	6.8	6.9	7.0	6.8	6.9
12	6.9	6.9	6.9	6.8	6.7	6.7	7.0	6.9	6.9	7.0	6.8	6.9
13	6.9	6.9	6.9	6.9	6.7	6.8	7.0	6.9	6.9	6.8	6.7	6.8
14	7.0	6.8	6.9	7.0	6.7	6.8	7.0	6.7	6.9	6.8	6.7	6.7
15	6.9	6.8	6.8	6.9	6.7	6.8	6.9	6.8	6.8	6.8	6.6	6.7
16	6.9	6.8	6.8	6.9	6.7	6.8	7.0	6.8	6.9	6.9	6.6	6.7
17	6.8	6.8	6.8	6.9	6.7	6.8	7.1	6.8	6.9	7.0	6.6	6.8
18	6.9	6.8	6.8	6.9	6.7	6.8	7.0	6.8	6.9	6.8	6.6	6.7
19	6.8	6.8	6.8	6.9	6.7	6.8	7.0	6.8	6.9	6.9	6.6	6.8
20	6.8	6.8	6.8	6.9	6.7	6.8	7.0	6.8	6.9	6.9	6.7	6.8
21	6.8	6.7	6.8	7.0	6.6	6.9	7.1	6.8	6.9	6.9	6.7	6.8
22	6.9	6.8	6.8	7.1	6.8	6.9	7.1	6.8	6.9	6.7	6.3	6.6
23	6.9	6.8	6.8	7.3	6.8	6.9	7.1	6.8	6.9	6.8	6.5	6.6
24	6.8	6.6	6.8	7.0	6.8	6.9	7.1	6.8	6.9	6.7	6.4	6.6
25	6.8	6.5	6.8	6.9	6.8	6.9	7.1	6.8	6.9	6.7	6.4	6.6
26	6.8	6.4	6.6	7.0	6.8	6.9	7.0	6.8	6.9	6.7	6.4	6.5
27	6.7	6.4	6.6	7.0	6.8	6.9	6.9	6.7	6.8	6.7	6.3	6.4
28	6.7	6.2	6.6	6.9	6.8	6.9	6.9	6.8	6.9	6.6	6.2	6.3
29	---	---	---	6.9	6.6	6.8	6.9	6.8	6.8	6.4	6.2	6.3
30	---	---	---	6.9	6.6	6.7	7.0	6.8	6.9	6.6	6.2	6.3
31	---	---	---	6.8	6.6	6.7	---	---	---	6.4	6.3	6.4
MONTH	7.1	6.2	6.8	7.3	6.3	6.8	7.2	6.7	6.9	7.3	6.2	6.7

01467030 DELAWARE RIVER AT TORRESDALE INTAKE AT PHILADELPHIA, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.5	6.3	6.4	7.0	6.7	6.8	6.6	6.3	6.4	6.8	6.4	6.6
2	6.5	6.3	6.4	6.9	6.7	6.8	6.7	6.4	6.5	6.7	6.4	6.6
3	6.5	6.4	6.4	6.9	6.6	6.8	6.8	6.4	6.6	6.7	6.4	6.6
4	6.6	6.4	6.4	6.8	6.6	6.7	6.8	6.4	6.6	6.6	6.4	6.5
5	6.6	6.4	6.4	6.8	6.6	6.7	6.9	6.5	6.7	6.6	6.4	6.5
6	6.5	6.4	6.5	6.9	6.6	6.7	6.9	6.6	6.7	6.6	6.3	6.5
7	6.5	6.3	6.4	6.9	6.6	6.8	6.9	6.5	6.7	6.6	6.5	6.5
8	6.6	6.4	6.5	6.9	6.6	6.8	6.8	6.4	6.6	6.6	6.4	6.5
9	6.6	6.4	6.5	6.9	6.6	6.8	6.8	6.4	6.6	6.5	6.3	6.4
10	6.7	6.4	6.5	6.8	6.6	6.7	6.9	6.4	6.6	6.5	6.3	6.3
11	6.5	6.4	6.5	6.8	6.5	6.7	6.7	6.4	6.5	6.4	6.2	6.3
12	6.6	6.4	6.5	6.9	6.5	6.7	6.6	6.3	6.5	6.6	6.2	6.3
13	6.7	6.4	6.5	6.8	6.5	6.6	6.6	6.4	6.5	6.6	6.2	6.3
14	6.6	6.4	6.5	6.7	6.4	6.6	6.6	6.4	6.5	6.7	6.2	6.3
15	6.7	6.4	6.6	6.7	6.5	6.6	6.8	6.4	6.6	6.4	6.2	6.3
16	6.7	6.4	6.6	6.7	6.5	6.6	7.0	6.5	6.7	6.5	6.2	6.3
17	6.7	6.5	6.6	6.6	6.5	6.5	6.9	6.5	6.7	6.4	6.2	6.3
18	6.8	6.5	6.6	6.6	6.5	6.5	6.8	6.5	6.6	---	---	---
19	6.8	6.4	6.7	6.7	6.4	6.5	6.8	6.4	6.6	6.7	6.6	6.7
20	6.7	6.4	6.6	6.6	6.4	6.5	6.8	6.4	6.6	6.9	6.4	6.7
21	6.7	6.4	6.5	6.6	6.5	6.5	6.7	6.4	6.6	6.7	6.4	6.6
22	6.7	6.3	6.5	6.6	6.4	6.5	6.7	6.4	6.6	6.7	6.3	6.5
23	6.5	6.3	6.4	6.6	6.4	6.5	6.7	6.4	6.6	6.7	6.4	6.5
24	6.5	6.3	6.4	6.5	6.3	6.4	6.7	6.4	6.6	6.8	6.5	6.6
25	6.5	6.3	6.4	6.4	6.3	6.4	6.6	6.4	6.5	6.7	6.5	6.6
26	6.7	6.3	6.5	6.5	6.3	6.4	6.6	6.4	6.5	6.7	6.5	6.5
27	6.9	6.4	6.6	6.4	6.3	6.3	6.8	6.4	6.6	6.7	6.4	6.6
28	7.0	6.5	6.7	6.5	6.2	6.4	6.8	6.5	6.6	6.9	6.5	6.6
29	7.1	6.6	6.8	6.5	6.3	6.3	7.1	6.5	6.7	6.7	6.5	6.6
30	7.0	6.6	6.8	6.4	6.3	6.3	6.7	6.5	6.6	6.7	6.3	6.5
31	---	---	---	6.5	6.3	6.4	6.8	6.5	6.6	---	---	---
MONTH	7.1	6.3	6.5	7.0	6.2	6.6	7.1	6.3	6.6	6.9	6.2	6.5

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.5	20.5	21.0	15.5	14.5	15.0	9.0	7.0	8.5	5.0	3.0	3.5
2	21.5	20.5	21.0	15.5	14.5	15.0	8.5	7.5	8.0	11.5	3.5	5.5
3	21.0	20.0	21.0	15.5	14.5	15.0	8.0	7.5	7.5	7.0	4.5	5.0
4	21.0	20.0	20.5	15.0	14.5	15.0	10.5	7.5	8.5	5.0	1.5	3.0
5	21.0	19.5	20.5	15.5	14.5	15.0	9.5	7.5	8.0	1.5	1.0	1.0
6	21.0	20.0	20.5	15.5	14.5	15.0	9.5	7.5	7.5	1.5	1.0	1.0
7	20.0	19.0	20.0	15.0	14.5	14.5	8.0	7.0	7.5	1.5	1.0	1.0
8	19.5	18.0	19.0	14.5	14.0	14.5	8.5	7.5	8.0	4.5	1.5	2.5
9	19.5	17.5	18.5	14.5	13.5	14.0	12.5	8.0	9.0	2.5	1.5	2.5
10	19.0	17.0	18.0	14.5	13.0	14.0	8.5	6.5	8.0	2.0	1.5	2.0
11	18.5	17.0	18.5	14.5	13.5	14.0	7.5	5.0	6.5	1.5	1.0	1.5
12	19.0	18.0	18.5	14.0	13.0	14.0	7.0	4.5	6.0	1.0	1.0	1.0
13	19.0	18.5	19.0	14.0	13.0	13.5	6.0	3.5	5.5	2.5	1.0	1.0
14	19.0	19.0	---	14.0	13.5	13.5	5.0	3.0	4.5	2.5	1.0	1.5
15	---	---	---	14.0	13.5	13.5	4.5	3.0	3.5	2.0	1.0	1.0
16	---	---	---	13.5	12.5	13.5	4.5	3.5	4.0	2.0	1.0	1.5
17	---	---	---	13.5	12.5	13.0	4.5	3.5	4.0	1.5	1.0	1.5
18	17.5	16.5	17.0	---	---	---	4.0	3.0	3.5	2.0	1.5	1.5
19	17.0	16.0	16.5	---	---	---	3.5	3.0	3.5	1.5	1.0	1.5
20	16.5	16.0	16.5	---	---	---	3.0	2.5	3.0	1.5	1.0	1.0
21	17.5	15.5	16.5	---	---	---	5.0	3.0	3.5	3.0	1.0	2.0
22	18.0	16.0	16.5	---	---	---	4.5	3.0	3.5	3.0	2.0	2.0
23	17.5	16.0	16.5	---	---	---	4.5	3.0	3.5	3.5	2.0	2.5
24	17.0	15.0	16.0	11.5	10.5	11.0	3.5	3.0	3.5	7.5	2.0	3.0
25	16.0	15.0	16.0	11.0	9.5	10.5	5.5	3.5	4.0	4.5	2.5	3.0
26	16.0	15.0	15.5	10.5	9.0	10.0	4.0	3.0	3.5	3.5	2.5	2.5
27	16.0	15.0	15.5	10.0	7.5	9.0	3.5	2.5	3.5	4.0	2.0	2.5
28	16.0	14.5	15.5	9.5	7.5	9.0	3.0	2.0	2.5	4.0	1.5	2.0
29	16.0	14.5	15.5	9.0	7.5	8.5	3.0	2.0	2.5	3.5	2.5	2.5
30	15.5	14.5	15.0	9.0	7.5	8.5	3.0	2.0	2.5	4.0	2.5	3.0
31	15.5	14.5	15.0	---	---	---	3.0	2.5	2.5	3.5	3.0	3.0
MONTH	21.5	14.5	18.0	15.5	7.5	13.0	12.5	2.0	5.0	11.5	1.0	2.0

01467030 DELAWARE RIVER AT TORRESDALE INTAKE AT PHILADELPHIA, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.0	2.5	3.0	5.5	2.0	3.0	11.0	9.0	9.5	18.0	16.0	16.5
2	3.5	1.5	2.5	6.5	3.0	3.5	10.0	9.0	9.5	18.0	16.0	16.5
3	3.0	1.5	2.0	5.5	3.5	4.0	10.5	9.5	10.0	18.0	16.0	16.5
4	2.5	1.5	2.0	8.0	4.0	4.5	10.0	9.5	10.0	17.5	16.5	17.0
5	1.5	.5	1.0	9.0	4.5	5.0	10.5	9.0	10.0	18.5	16.0	17.0
6	6.0	.5	1.0	10.0	4.5	6.0	10.0	8.5	9.5	18.0	16.0	17.0
7	.5	.5	.5	7.5	3.0	5.5	9.0	7.5	8.5	19.5	16.5	17.5
8	1.0	.5	.5	6.5	3.0	4.0	8.5	7.5	8.0	19.5	17.0	18.0
9	1.0	.5	.5	6.5	4.0	4.5	8.0	7.5	8.0	19.5	18.0	18.5
10	1.0	.5	.5	6.5	4.5	5.0	9.0	7.5	8.5	20.0	18.5	19.0
11	1.0	.5	.5	6.5	5.0	5.5	10.0	8.5	9.0	21.0	19.0	20.0
12	.5	.5	.5	5.0	4.5	5.0	10.0	8.5	9.0	20.5	19.5	20.0
13	.5	.5	.5	6.0	4.0	5.0	9.5	7.5	9.0	21.0	20.0	20.5
14	1.0	.5	.5	8.5	4.5	5.5	9.5	9.0	9.0	21.5	20.5	21.0
15	1.0	.5	.5	6.0	4.5	5.0	11.0	9.0	9.5	23.0	20.5	21.5
16	.5	.5	.5	7.0	4.0	5.0	10.5	9.5	10.0	23.0	21.0	21.5
17	.5	.5	.5	7.0	4.5	5.0	11.0	9.5	10.0	22.5	20.0	21.5
18	.5	.5	.5	7.0	5.0	5.5	11.5	9.5	10.0	21.0	19.5	20.5
19	2.5	.5	.5	7.0	5.0	5.5	12.0	9.5	10.5	20.5	17.5	20.0
20	.5	.5	.5	8.0	5.5	6.5	12.0	10.0	10.5	20.0	18.5	19.5
21	.5	.5	.5	9.5	6.0	7.0	13.0	10.5	11.5	19.5	19.0	19.5
22	1.0	.5	.5	12.0	7.0	7.5	14.0	11.5	12.0	20.0	19.0	19.5
23	1.0	.5	.5	10.5	8.0	8.5	14.0	12.0	13.0	20.0	18.5	19.5
24	1.0	.5	.5	11.5	8.5	9.5	14.0	13.0	13.5	20.0	18.0	19.5
25	1.5	1.0	1.0	10.5	9.5	9.5	15.0	13.5	14.0	20.5	18.5	19.5
26	2.0	.5	1.5	10.0	9.0	9.5	17.0	14.5	15.0	19.5	17.5	18.5
27	3.5	1.5	2.0	10.0	8.5	9.5	16.5	15.0	15.5	18.0	16.5	17.0
28	4.5	1.5	2.0	10.0	8.0	9.0	17.5	15.5	16.0	17.5	15.5	16.5
29	---	---	---	9.5	8.0	8.5	18.0	16.0	17.0	17.0	15.5	16.0
30	---	---	---	10.0	8.0	8.5	18.5	16.5	17.0	18.0	16.0	16.5
31	---	---	---	11.0	8.0	9.0	---	---	---	18.5	16.5	17.0
MONTH	6.0	.5	1.0	12.0	2.0	6.5	18.5	7.5	11.0	23.0	15.5	18.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.5	17.5	18.0	26.5	24.0	25.0	30.5	28.0	29.0	28.0	27.0	27.5
2	19.5	18.0	18.5	25.0	24.0	25.0	30.5	29.0	29.5	28.0	27.0	27.5
3	19.0	18.5	18.5	26.0	24.0	25.0	30.0	28.5	29.5	28.0	27.0	27.5
4	19.5	18.0	19.0	25.0	23.5	24.5	30.0	28.5	29.5	28.5	27.5	28.0
5	20.5	18.5	19.5	24.5	22.5	24.0	30.0	29.0	30.0	28.5	27.5	28.0
6	20.5	19.5	20.0	24.0	23.0	23.5	30.5	29.0	30.0	28.0	25.5	27.5
7	22.0	20.0	20.5	24.5	23.5	24.0	30.0	28.5	29.5	28.5	27.0	28.0
8	22.0	20.5	21.5	25.0	23.5	24.5	30.0	29.0	29.5	28.0	26.5	27.5
9	22.5	21.5	22.0	25.5	24.0	24.5	30.0	29.0	29.5	26.5	25.0	26.0
10	24.0	22.0	23.0	25.5	24.5	24.5	30.0	28.5	29.5	26.0	24.5	25.0
11	23.0	20.5	22.5	27.0	24.0	25.0	29.5	28.5	29.0	25.0	24.0	24.5
12	23.5	19.5	22.5	26.0	25.0	25.0	28.5	25.0	27.0	25.5	23.0	24.0
13	24.0	21.5	23.0	27.5	25.0	26.0	27.0	24.5	26.5	25.0	23.0	24.0
14	24.0	21.5	23.0	26.5	25.5	26.0	27.0	25.0	26.0	25.0	23.5	24.0
15	24.0	21.5	22.5	27.5	25.0	26.5	26.0	24.5	25.5	24.5	22.5	24.0
16	24.5	21.5	22.5	28.5	26.0	27.0	25.5	23.5	25.0	24.0	22.0	23.5
17	24.0	22.0	23.0	28.5	25.5	27.5	25.0	23.5	24.5	24.0	23.0	23.5
18	24.0	22.5	23.0	27.5	27.0	27.5	25.0	23.0	24.5	---	---	---
19	24.0	22.0	23.5	28.5	26.5	28.0	24.5	23.5	24.0	23.5	22.0	23.0
20	24.5	23.0	24.0	29.0	28.0	28.0	25.0	24.0	24.5	23.5	22.0	23.0
21	24.5	23.5	24.0	28.5	27.5	28.0	25.0	24.0	24.5	22.5	21.0	22.5
22	24.5	21.5	24.0	28.5	27.5	28.0	25.5	24.0	24.5	22.5	21.0	22.0
23	25.0	23.0	24.0	28.5	27.5	28.0	25.5	24.5	25.0	22.0	20.5	21.5
24	24.5	23.0	24.0	29.0	27.0	28.0	25.5	24.5	25.0	21.5	20.0	21.0
25	25.0	23.0	24.0	29.0	27.0	28.0	26.5	24.5	25.0	20.5	19.5	20.0
26	25.5	23.0	24.0	29.0	28.0	28.5	26.0	25.0	25.5	20.5	19.0	19.5
27	25.5	23.5	24.5	29.0	27.5	28.5	27.0	25.5	26.0	20.5	19.0	20.0
28	25.5	23.5	24.5	30.0	28.0	29.0	27.5	25.5	26.0	20.5	19.0	19.5
29	26.0	24.0	24.5	29.5	28.0	28.5	28.0	26.0	26.5	21.0	19.5	20.0
30	26.5	24.5	25.0	29.0	24.5	28.0	28.0	26.0	27.0	20.5	19.5	20.0
31	---	---	---	30.0	27.0	28.5	28.5	26.5	27.0	---	---	---
MONTH	26.5	17.5	22.5	30.0	22.5	26.5	30.5	23.0	27.0	28.5	19.0	24.0

01467030 DELAWARE RIVER AT TORRESDALE INTAKE AT PHILADELPHIA, PA--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.2	6.7	7.5	9.6	8.5	9.2	10.7	9.6	10.1	12.0	11.5	11.7
2	7.9	6.5	7.4	9.3	8.2	9.0	10.9	9.8	10.2	12.0	10.0	11.5
3	7.9	6.3	7.3	9.4	8.3	9.0	10.9	9.8	10.4	12.1	10.9	11.7
4	7.7	4.6	6.3	9.1	7.8	8.6	10.9	10.0	10.4	12.5	11.3	11.8
5	7.4	5.4	6.7	9.0	7.8	8.5	10.8	10.1	10.5	13.0	12.5	12.8
6	7.2	5.8	6.5	9.1	7.8	8.5	11.0	10.2	10.6	13.2	12.8	13.0
7	7.2	5.7	6.5	9.1	7.8	8.4	11.1	10.4	10.7	13.2	12.7	13.0
8	7.5	5.7	6.7	8.7	7.4	8.3	11.0	10.3	10.6	13.2	12.2	12.8
9	7.9	5.9	6.8	9.2	7.6	8.2	11.2	8.6	10.3	12.8	12.4	12.6
10	8.4	6.5	7.2	9.1	7.5	8.4	11.5	10.2	10.6	12.8	12.5	12.7
11	8.3	5.8	7.4	9.1	7.7	8.3	11.6	10.7	11.0	13.1	12.7	12.9
12	8.0	6.3	7.2	8.9	7.6	8.4	11.6	10.7	10.9	13.2	12.9	13.0
13	8.2	5.9	7.3	9.5	7.6	8.7	11.9	10.7	11.1	13.2	12.9	13.0
14	7.0	6.6	---	10.6	8.2	9.1	12.0	10.9	11.5	13.1	12.2	12.9
15	---	---	---	9.9	8.7	9.3	12.2	11.2	11.9	13.0	12.3	12.9
16	---	---	---	9.7	8.2	9.2	12.2	11.9	12.1	12.9	12.7	12.8
17	---	---	---	---	---	---	12.3	12.0	12.1	12.8	12.6	12.7
18	8.4	7.3	7.8	---	---	---	12.2	11.8	12.1	13.2	12.5	12.8
19	8.6	7.2	8.0	---	---	---	12.2	11.8	12.0	13.2	12.9	13.1
20	8.5	7.3	8.0	---	---	---	12.1	11.7	11.9	13.2	12.9	13.1
21	8.6	7.2	7.9	---	---	---	12.0	11.6	11.9	13.5	12.3	13.0
22	8.6	7.4	8.1	---	---	---	12.0	11.6	11.8	12.7	12.0	12.4
23	8.7	7.6	8.2	---	---	---	11.9	11.7	11.8	12.9	11.9	12.5
24	9.5	7.3	8.6	10.5	9.6	9.9	12.0	11.6	11.8	13.0	11.7	12.7
25	9.5	8.1	8.8	10.3	9.4	9.8	12.0	11.5	11.9	12.9	12.1	12.5
26	9.6	8.5	9.0	10.7	9.5	10.1	12.0	11.7	11.9	12.7	12.1	12.4
27	9.6	8.3	9.1	10.6	9.7	10.1	12.1	11.7	11.9	12.9	11.9	12.8
28	9.4	8.0	8.9	10.6	9.5	10.0	12.2	11.9	12.1	13.0	12.1	12.8
29	9.2	8.0	8.7	10.5	9.6	10.0	12.1	11.7	12.0	13.0	12.4	12.8
30	9.8	7.8	9.1	10.7	9.5	10.0	12.1	11.6	11.8	12.9	12.5	12.8
31	9.7	8.6	9.3	---	---	---	12.0	11.6	11.7	13.0	12.4	12.6
MONTH	9.8	4.6	7.8	10.7	7.4	9.1	12.3	8.6	11.3	13.5	10.0	12.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.6	12.1	12.5	12.6	12.0	12.4	11.0	10.3	10.7	8.6	7.6	8.3
2	12.7	12.5	12.6	12.4	11.7	12.2	11.2	10.0	10.5	8.9	8.1	8.5
3	12.7	12.4	12.6	12.4	11.6	12.2	10.5	9.6	10.1	11.0	8.2	8.6
4	12.8	12.5	12.7	12.4	11.7	12.2	10.4	9.7	10.2	9.2	8.2	8.5
5	13.1	12.7	12.9	12.4	10.7	12.1	10.5	9.9	10.1	9.0	8.0	8.4
6	13.5	13.0	13.1	12.4	10.3	11.8	10.7	10.0	10.3	8.9	8.1	8.5
7	13.2	12.9	13.0	12.3	10.9	11.7	11.0	10.4	10.7	10.4	8.5	8.8
8	13.1	12.8	13.0	12.3	11.3	12.1	11.1	10.5	10.8	9.9	8.6	9.1
9	13.0	12.8	12.9	12.2	11.3	12.0	10.9	10.1	10.7	10.0	8.4	9.2
10	13.1	12.7	12.9	12.2	11.4	11.9	11.1	10.4	10.8	9.6	8.0	9.1
11	12.9	12.7	12.8	12.0	10.6	11.7	11.1	10.6	10.9	9.2	8.4	8.8
12	12.9	12.6	12.7	11.9	11.5	11.8	11.2	10.4	10.8	9.2	7.2	8.1
13	12.7	12.5	12.6	12.1	11.6	11.8	11.2	10.5	11.0	7.3	6.6	7.1
14	14.1	12.4	12.6	12.3	10.7	11.9	11.1	10.5	10.8	6.6	5.9	6.4
15	12.6	12.3	12.4	12.3	11.7	12.1	10.9	10.3	10.6	6.8	5.2	6.0
16	12.6	12.2	12.4	12.8	11.7	12.0	10.8	10.4	10.7	7.1	5.2	6.1
17	12.7	12.4	12.6	12.0	11.7	11.9	11.2	10.4	10.6	8.3	5.0	6.7
18	12.8	12.4	12.6	12.1	11.6	11.9	10.8	10.3	10.6	7.6	5.3	6.8
19	13.2	12.3	12.5	12.1	11.4	11.8	11.0	10.3	10.7	7.9	5.2	7.0
20	12.5	11.9	12.2	12.0	11.2	11.7	11.2	10.4	10.7	7.9	6.4	7.0
21	12.0	11.3	11.7	11.8	11.1	11.5	11.2	10.1	10.6	7.4	6.3	6.9
22	12.2	11.2	11.8	11.6	10.9	11.2	11.3	9.6	10.4	8.1	6.1	7.2
23	12.4	11.8	12.0	11.3	10.1	10.9	10.7	9.7	10.2	7.8	6.8	7.3
24	13.1	11.9	12.3	10.9	9.5	10.5	10.2	9.4	9.9	8.7	6.4	7.4
25	13.4	12.1	12.5	10.9	9.5	10.2	9.9	9.1	9.5	8.5	6.9	7.4
26	13.4	12.3	12.8	10.1	9.7	9.9	9.5	6.9	9.2	8.3	7.1	7.7
27	12.9	12.0	12.7	10.4	9.7	9.9	9.0	7.4	8.5	8.8	8.0	8.3
28	12.8	12.2	12.6	10.8	9.9	10.3	8.5	8.0	8.3	9.1	8.4	8.8
29	---	---	---	11.2	10.0	10.6	8.1	7.4	7.7	9.1	8.6	8.9
30	---	---	---	11.2	10.4	10.8	8.5	7.2	7.8	9.1	8.2	8.8
31	---	---	---	11.2	10.4	10.9	---	---	---	8.7	8.2	8.4
MONTH	14.1	11.2	12.6	12.8	9.5	11.5	11.3	6.9	10.2	11.0	5.0	7.9

DELAWARE RIVER BASIN

01467030 DELAWARE RIVER AT TORRESDALE INTAKE AT PHILADELPHIA, PA--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.5	7.6	8.1	7.8	6.9	7.3	5.5	2.6	3.8	7.8	4.6	6.4
2	8.2	7.2	7.8	7.5	6.5	6.9	5.8	3.1	4.2	7.3	4.7	6.2
3	8.0	7.5	7.8	7.4	5.7	6.5	6.2	3.5	4.7	6.7	4.3	6.0
4	7.9	7.3	7.6	6.5	5.3	6.1	6.2	3.3	4.9	6.4	4.1	5.6
5	7.6	7.0	7.4	7.1	5.3	6.1	6.4	3.9	5.4	6.0	3.4	5.2
6	7.3	6.5	7.1	7.1	5.2	6.2	6.5	4.1	5.6	6.7	2.4	5.1
7	7.4	6.0	6.8	7.3	4.9	6.4	6.7	3.3	5.5	5.8	4.7	5.2
8	7.2	5.9	6.6	7.5	4.7	6.4	6.4	2.8	5.1	6.1	4.4	4.8
9	6.8	5.7	6.3	7.6	4.7	6.6	6.5	2.6	5.0	6.3	3.8	4.8
10	7.0	5.5	6.3	7.4	4.9	6.4	7.2	1.8	4.8	6.7	4.2	5.2
11	6.3	5.0	5.9	7.3	4.9	6.3	6.3	3.1	4.9	7.1	4.7	5.6
12	7.4	5.3	6.6	7.9	3.7	5.8	5.9	2.9	4.8	7.9	4.7	5.9
13	7.4	5.5	6.5	7.1	3.7	5.6	6.4	4.0	5.1	8.1	4.9	6.2
14	7.3	5.3	6.5	6.4	3.5	5.2	6.7	4.4	5.3	7.8	5.0	6.4
15	7.2	4.9	6.4	6.8	4.0	5.3	8.0	5.0	5.9	7.3	5.5	6.6
16	7.3	5.2	6.4	5.8	3.3	5.1	8.4	4.6	6.3	7.9	5.8	6.9
17	7.4	5.4	6.5	5.5	4.1	4.9	8.6	4.3	6.6	7.4	5.6	6.7
18	6.9	5.6	6.3	4.9	3.6	4.4	7.4	4.2	6.1	---	---	---
19	8.1	5.6	7.0	5.6	3.2	4.4	7.6	3.5	6.2	7.7	6.7	7.3
20	7.9	5.5	7.0	5.6	3.0	4.5	8.2	4.2	6.5	8.3	5.4	7.2
21	7.4	5.6	6.7	5.5	3.4	4.5	6.9	4.0	6.0	7.4	5.2	6.8
22	7.0	4.7	6.2	5.6	3.3	4.6	7.8	3.9	6.3	7.2	4.0	6.1
23	5.7	3.1	4.9	5.8	3.2	4.5	7.6	4.3	6.4	7.2	5.4	6.0
24	5.6	3.4	4.8	5.9	1.7	4.0	7.7	3.7	6.1	7.7	5.9	6.6
25	6.2	4.0	5.1	4.8	1.6	3.8	7.4	4.7	6.1	7.6	6.5	6.9
26	6.7	3.8	5.5	4.7	2.1	3.6	7.4	5.1	6.2	7.8	6.8	7.0
27	7.5	4.8	6.1	4.5	1.7	3.2	8.0	5.0	6.3	8.3	6.8	7.4
28	8.8	5.8	7.1	4.5	1.2	2.9	7.7	5.3	6.4	9.0	7.0	7.6
29	8.5	6.1	7.4	4.1	1.8	3.0	8.7	5.6	6.6	8.1	7.2	7.5
30	8.2	6.4	7.5	4.8	1.9	3.6	7.2	4.6	6.2	8.4	6.9	7.5
31	---	---	---	4.4	3.0	3.8	7.7	4.8	6.3	---	---	---
MONTH	8.8	3.1	6.6	7.9	1.2	5.1	8.7	1.8	5.7	9.0	2.4	6.3

01467036 PENNYPACK CREEK TRIBUTARY AT HATBORO, PA

LOCATION.--Lat 40°10'51", long 75°06'45", Montgomery County, Hydrologic Unit 02040202, on left bank 15 ft (5 m) upstream from Moreland Avenue, 0.5 mi (0.8 km) upstream from confluence with Pennypack Creek, at Hatboro.

DRAINAGE AREA.--4.36 mi² (11.29 km²).

PERIOD OF RECORD.--August 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 220 ft (67 m), from topographic map.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 818 ft³/s (23.2 m³/s) Aug. 28, 1978, gage height 7.76 ft (2.365 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft³/s (9.91 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Aug. 11	1415	484	13.7	6.30	1.920	May 24	1800	493	14.0	6.34	1.932
Aug. 28	0630	*818	23.2	*7.76	2.365	July 15	1800	484	13.7	6.30	1.920
Dec. 9	0615	363	10.3	5.65	1.722	Sept. 6	0545	559	15.8	6.66	2.030
Jan. 21	0345	484	13.7	6.30	1.920	Sept. 21	2230	384	10.9	5.77	1.759
Jan. 24	1945	583	16.5	6.77	2.063	Sept. 30	0615	*596	16.9	*6.83	2.082
Feb. 26	0330	515	14.6	6.45	1.966						

No flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											2.0	2.2
2											1.0	1.1
3											3.0	1.0
4											1.5	.90
5											1.7	1.0
6											6.0	.69
7											1.9	.42
8											.74	.79
9											.34	.59
10											2.0	.50
11											30	.69
12											17	1.6
13											3.6	.79
14											2.5	.42
15											2.7	1.6
16											2.2	.69
17											1.9	.42
18											1.6	4.0
19											1.4	4.2
20											1.1	.59
21											1.1	.50
22											1.1	.50
23											.98	.42
24											.87	.34
25											.78	.42
26											1.3	.34
27											2.6	.34
28											82	.34
29											4.2	.27
30											1.2	.27
31											5.4	---
TOTAL											185.71	27.93
MEAN											5.99	.93
MAX											82	4.2
MIN											.34	.27
CFSM											1.37	.21
IN.											1.58	.24

PENNYPACK CREEK BASIN

01467036 PENNYPACK CREEK TRIBUTARY AT HATBORO, PA--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	.50	.50	6.1	5.8	9.6	4.8	2.4	2.5	12	1.2	.46
2	.27	.34	.34	56	5.7	8.8	5.5	2.3	3.2	1.7	1.6	.44
3	.27	.42	.34	8.3	5.2	8.1	6.1	3.0	9.2	1.1	2.5	.45
4	1.5	.42	7.9	4.7	5.2	7.9	6.7	2.5	14	3.8	1.2	.50
5	.34	.34	11	4.1	5.0	7.9	6.4	2.1	3.8	1.3	.82	2.3
6	.50	.42	1.1	4.0	4.7	45	5.1	1.9	2.5	1.1	.79	76
7	.21	.50	.79	33	4.5	12	5.4	1.7	5.6	.96	.70	2.6
8	.15	.42	9.0	61	4.4	8.7	5.8	1.8	3.2	.87	.66	1.9
9	.27	.42	93	7.9	4.2	7.7	14	1.7	2.5	.84	.55	1.6
10	.34	.34	6.0	5.6	4.0	7.5	7.8	1.6	2.4	.84	.75	1.6
11	.42	.34	2.8	4.7	4.0	14	3.2	1.6	49	.84	3.9	1.6
12	.42	.34	2.2	4.2	4.0	7.9	3.0	4.5	5.9	.79	23	1.6
13	.42	.34	2.0	14	4.5	6.9	2.3	3.2	3.4	.73	2.5	1.6
14	.59	.42	1.5	10	4.0	6.8	17	5.1	2.8	2.3	1.2	14
15	.50	.42	1.5	4.5	4.5	6.3	5.3	1.9	2.4	26	1.2	1.6
16	.79	.59	1.1	4.0	4.1	6.0	3.3	1.6	2.1	7.9	1.1	1.2
17	2.4	.69	1.9	4.2	4.0	5.9	2.3	1.5	3.2	2.6	1.0	1.1
18	.15	6.6	2.4	4.2	5.6	5.8	1.7	11	2.1	17	3.0	1.1
19	.21	.27	2.2	4.8	10	5.6	1.7	24	1.7	2.5	1.4	2.5
20	.27	.34	2.5	13	9.6	5.5	1.7	4.5	1.6	1.3	1.0	1.0
21	.15	.42	7.7	179	14	5.3	1.6	3.0	1.5	1.9	1.3	41
22	.15	.50	1.3	9.8	15	5.1	1.6	2.3	8.9	1.1	.93	41
23	.27	1.5	1.1	6.2	7.9	5.0	1.6	34	2.4	1.6	.90	3.2
24	.34	1.6	18	135	109	20	1.6	82	1.5	1.6	1.6	1.8
25	.59	.27	42	25	89	8.0	1.4	35	1.5	1.0	1.1	1.6
26	.69	.27	4.0	11	108	6.0	14	9.6	1.3	2.3	.72	1.4
27	2.4	.59	3.4	9.8	16	5.1	7.3	7.7	1.2	.99	1.2	1.2
28	.27	2.7	3.1	8.3	11	5.1	3.0	7.7	2.4	.75	1.0	1.2
29	.27	5.4	2.9	7.3	---	5.4	2.6	11	4.4	5.6	1.5	2.4
30	.42	5.7	2.6	6.7	---	5.2	2.5	4.4	1.5	27	.87	84
31	.42	---	3.3	6.3	---	4.9	---	3.2	---	2.4	.57	---
TOTAL	19.39	33.42	239.47	662.7	472.9	269.0	146.3	279.8	149.7	132.71	61.76	293.95
MEAN	.63	1.11	7.72	21.4	16.9	8.68	4.88	9.03	4.99	4.28	1.99	9.80
MAX	3.4	6.6	93	179	109	45	17	82	49	27	23	84
MIN	.15	.27	.34	4.0	4.0	4.9	1.4	1.5	1.2	.73	.55	.44
CFSM	.14	.26	1.77	4.91	3.88	1.99	1.12	2.07	1.14	.98	.46	2.25
IN.	.17	.29	2.04	5.65	4.03	2.29	1.25	2.39	1.28	1.13	.53	2.51

WTR YR 1979 TOTAL 2761.10 MEAN 7.56 MAX 179 MIN .15 CFSM 1.73 IN 23.55

01467042 PENNYPACK CREEK AT PINE ROAD, PHILADELPHIA, PA

LOCATION.--Lat 40°05'23", long 75°04'10", Philadelphia County, Hydrologic Unit 02040202, on right bank 20 ft (6 m) below Pine Road, 300 ft (91 m) upstream from Stream "A" at north city limits of Philadelphia.

DRAINAGE AREA.--37.9 mi² (98.2 km²).

PERIOD OF RECORD.--August 1964 to September 1970, July 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 80.41 ft (24.509 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 26, 1976, at site 35 ft (11 m) upstream at same datum.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years (Water years 1965-1970, 1975-79), 63.5 ft³/s (1.798 m³/s), 22.74 in/yr (578 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,770 ft³/s (107 m³/s) Dec. 21, 1973, gage height, 10.02 ft (3.054 m), from rating curve extended above 720 ft³/s (20.4 m³/s) on basis of step-backwater analysis; minimum, 5.2 ft³/s (0.15 m³/s) July 26, 27, 1966, gage height, 2.47 ft (0.753 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 28, 1971 reached a stage of 11.08 ft (3.377 m), from floodmark, discharge, 5,160 ft³/s (146 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 9	1030	1,670	47.3	7.18	2.188	May 24	0145	2,400	68.0	8.40	2.560
Dec. 25	0415	1,170	33.1	6.15	1.875	June 11	1615	1,260	35.7	6.35	1.935
Jan. 8	0145	1,390	39.4	6.62	2.018	July 16	2315	1,000	28.3	5.77	1.759
Jan. 21	0845	3,300	93.5	9.57	2.917	July 30	0630	*3,740	106	*10.04	3.060
Jan. 24	2345	2,850	80.7	9.00	2.743	Sept. 6	1000	2,320	65.7	8.28	2.524
Feb. 25	0230	2,130	60.3	7.96	2.426	Sept. 22	0315	1,540	43.6	6.92	2.109
Feb. 26	0715	2,860	81.0	9.01	2.746	Sept. 30	0900	1,800	51.0	7.41	2.259
Mar. 6	1515	1,080	30.6	5.94	1.811						

Minimum discharge, 15 ft³/s (0.42 m³/s) Nov. 21, 22, 23, 25, 26, gage height, 2.98 ft (0.908 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	27	24	62	79	137	52	46	81	60	62	27
2	22	28	21	472	71	122	56	45	75	57	64	32
3	20	30	20	137	68	104	64	46	163	42	79	30
4	29	28	60	62	66	92	64	51	189	56	73	27
5	23	28	112	56	60	95	75	45	99	52	46	30
6	27	28	34	54	60	460	54	42	81	40	42	884
7	20	28	30	153	57	189	49	42	153	38	41	67
8	19	28	46	720	57	120	48	41	97	35	39	49
9	20	28	777	114	54	99	122	41	75	35	38	44
10	20	29	117	79	52	92	77	40	71	35	39	42
11	20	28	52	68	50	185	59	39	432	35	63	41
12	21	28	45	62	50	92	56	68	127	34	313	40
13	22	29	42	130	55	81	52	52	86	42	92	39
14	28	28	40	178	52	81	240	60	77	104	45	138
15	24	28	40	70	55	71	90	46	71	181	40	68
16	27	34	39	59	53	66	70	39	66	163	38	37
17	39	36	40	57	52	66	62	36	71	143	34	36
18	23	66	41	56	54	62	59	92	66	88	46	35
19	23	20	42	56	71	60	56	284	60	66	51	41
20	23	20	42	79	81	59	54	92	57	38	34	34
21	24	18	75	1830	109	56	52	57	54	45	36	78
22	24	18	40	170	163	54	51	52	90	36	33	516
23	26	18	36	102	86	52	51	252	109	35	31	75
24	28	32	95	914	743	209	49	916	54	66	42	51
25	29	18	400	542	1000	97	49	427	54	39	39	47
26	30	18	56	167	1260	66	90	150	51	49	33	45
27	41	21	48	137	249	59	181	112	51	40	31	44
28	24	36	42	117	163	56	59	117	51	34	34	42
29	24	32	41	104	---	59	54	178	79	38	44	62
30	26	81	40	90	---	56	49	114	48	1040	35	671
31	27	---	42	86	---	54	---	88	---	85	29	---
TOTAL	791	891	2579	6983	4970	3151	2144	3710	2838	2851	1666	3372
MEAN	25.5	29.7	83.2	225	178	102	71.5	120	94.6	92.0	53.7	112
MAX	41	81	777	1830	1260	460	240	916	432	1040	313	884
MIN	19	18	20	54	50	52	48	36	48	34	29	27
CFSM	.67	.78	2.20	5.94	4.70	2.69	1.89	3.17	2.50	2.43	1.42	2.96
IN.	.76	.87	2.53	6.85	4.88	3.09	2.10	3.64	2.79	2.80	1.64	3.31

CAL YR 1978 TOTAL 29399 MEAN 80.5 MAX 1740 MIN 18 CFSM 2.12 IN 28.86
WTR YR 1979 TOTAL 35946 MEAN 98.5 MAX 1830 MIN 18 CFSM 2.60 IN 35.28

PENNYPACK CREEK BASIN

01467043 STREAM 'A' AT PHILADELPHIA, PA.

LOCATION.--Lat 40°05'27", long 75°03'50", Philadelphia County, Hydrologic Unit 02040202, on left bank 25 ft (8 m) upstream from concrete box culvert on Bloomfield Avenue, 600 ft (180 m) upstream from mouth, at Philadelphia.

DRAINAGE AREA.--1.20 mi² (3.11 km²).

PERIOD OF RECORD.--Annual maximums, water years 1965-1977. Discontinued as a crest-stage partial-record station; established as a continuous-record station Dec. 4, 1976. December 1976 to September 1977.

GAGE.--Water-stage recorder. Datum of gage is 82.58 ft (25.170 m) National Geodetic Vertical Datum of 1929. Feb. 11, 1965 to Dec. 3, 1976, crest-stage gage at site 9 ft (3 m) downstream at same datum.

REMARKS.--Records poor. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 663 ft³/s (18.8 m³/s) July 13, 1975, gage height, 18.03 ft (5.496 m); no flow part of many days in January and February 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50 ft³/s (1.42 m³/s) and maximum(*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Jan. 21	0325	116	3.29	12.48	3.804	June 22	2215	85	2.41	11.99	3.654
Jan. 24	1925	96	2.72	12.17	3.709	July 16	unknown	64	1.81	11.62	3.542
Feb. 25	unknown	unknown		unknown		July 30	unknown	294	8.33	14.59	4.447
Feb. 26	unknown	unknown		unknown		Sept. 6	0110	100	2.83	12.24	3.731
May 23	unknown	*325	9.20	*14.9	4.54	Sept. 21	unknown	129	3.65	12.67	3.862
June 11	unknown	unknown		unknown							

Minimum daily discharge, 0.22 ft³/s (0.006 m³/s) Oct. 10, 11, 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.29	.50	1.5	.75	1.2	.51	.45	.90	2.9	1.0	.51
2	.85	.29	.40	7.0	.66	1.2	.75	.45	.80	.58	1.6	.99
3	.39	.34	.35	1.5	.60	.84	1.0	.66	3.5	.51	2.2	.51
4	.75	.34	1.0	1.0	.60	.75	1.0	.51	4.0	1.6	2.2	.51
5	.34	.34	3.0	.80	.55	1.0	.75	.45	2.0	.66	1.0	4.5
6	.51	.34	.70	.70	.55	10	.51	.39	1.0	.58	1.0	9.1
7	.29	.39	.50	2.5	.50	3.4	.51	.39	3.5	.58	1.0	1.0
8	.25	.39	1.0	9.0	.50	2.0	.51	.39	2.0	.58	1.0	.80
9	.25	.39	10	1.5	.50	2.2	3.2	.45	1.2	.66	1.0	.70
10	.22	.39	1.0	1.2	.50	2.2	1.3	.39	1.0	.75	1.0	.65
11	.22	.39	.70	1.1	.50	4.2	.75	.34	10	.75	2.5	.60
12	.22	.39	.60	1.0	.50	2.0	.86	1.3	1.2	.75	7.0	.60
13	.22	.39	.56	5.0	.55	1.9	.66	1.2	1.2	.80	1.0	.60
14	.50	.39	.52	2.0	.50	1.9	5.4	.86	1.0	2.0	.80	3.5
15	.29	.51	.50	1.5	.60	1.6	1.2	.39	.86	5.0	.70	1.0
16	.51	.75	.50	1.2	.55	1.6	1.0	.25	.86	4.0	.65	.70
17	.75	.75	.55	1.1	.50	1.4	.86	.25	1.2	2.5	.60	.60
18	.29	1.0	.50	1.0	.60	1.4	.75	3.1	.86	1.5	1.0	.50
19	.34	.34	.50	1.0	1.0	1.3	.75	7.3	.75	1.0	.70	.80
20	.34	.34	.55	6.3	2.0	1.3	.75	.86	.86	.80	.60	.50
21	.29	.34	1.0	29	3.0	1.2	.75	.51	.86	1.0	.70	2.0
22	.34	.34	.60	1.9	4.0	1.2	.75	.40	6.5	.70	.50	7.5
23	.34	.45	.50	1.3	1.5	1.0	.75	3.0	1.2	.60	.45	1.5
24	.34	.60	1.5	15	10	5.0	.66	15	.66	1.5	.90	.70
25	.34	.35	6.0	2.6	25	1.9	.66	4.5	.66	.80	.80	.51
26	.39	.35	1.5	2.0	10	1.0	3.9	2.0	.75	1.0	.60	.51
27	.75	.40	1.0	1.6	3.0	.66	1.2	1.2	.75	.80	.55	.51
28	.25	2.0	.70	1.3	1.5	.66	.58	1.5	1.0	.60	.80	.51
29	.29	1.0	.60	1.0	---	.75	.51	3.5	1.3	1.0	3.1	1.9
30	.29	2.0	.60	.86	---	.58	.45	1.5	1.0	20	.58	8.0
31	.29	---	.70	.86	---	.58	---	1.0	---	1.2	.58	---
TOTAL	12.52	17.38	38.63	105.32	71.01	59.54	33.23	54.49	53.37	57.70	38.11	52.31
MEAN	.40	.58	1.25	3.40	2.54	1.92	1.11	1.76	1.78	1.86	1.23	1.74
MAX	1.2	2.0	10	29	25	10	5.4	15	10	20	7.0	9.1
MIN	.22	.29	.35	.70	.50	.58	.45	.25	.66	.51	.45	.50
CFSM	.33	.48	1.04	2.83	2.12	1.60	.93	1.47	1.48	1.55	1.03	1.45
IN.	.38	.54	1.20	3.26	2.20	1.84	1.03	1.69	1.65	1.79	1.18	1.62

CAL YR 1978 TOTAL 582.46 MEAN 1.60 MAX 24 MIN .22 CFSM 1.33 IN 18.04
WTR YR 1979 TOTAL 593.41 MEAN 1.63 MAX 29 MIN .22 CFSM 1.36 IN 18.38

01467048 PENNYPACK CREEK AT LOWER RHAWN STREET BRIDGE, PHILADELPHIA, PA

LOCATION.--Lat 49°03'00", long 75°01'59", Philadelphia County, Hydrologic Unit 02040202, on left bank at downstream side of footbridge pier, 400 ft (122 m) downstream from Lower Rhawn Street Bridge, 0.8 mi (1.3 km) upstream from Wooden Bridge Run, in Philadelphia.

DRAINAGE AREA.--49.8 mi² (129 km²).

PERIOD OF RECORD.--June 1965 to September 1970, July 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 21.27 ft (6.483 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years (Water years 1966-1970, 1975-79), 85.7 ft³/s (2.427 m³/s), 23.38 in/yr (594 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,160 ft³/s (146 m³/s) Aug. 27, 1967, gage height, 10.54 ft (3.213 m); minimum, 6.0 ft³/s (0.17 m³/s) Oct. 11, 1966, gage height, 1.97 ft (0.600 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,250 ft³/s (35.4 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 9	1245	2,080	58.9	6.22	1.896	May 24	2400	1,420	40.2	5.36	1.634
Dec. 25	0530	1,330	37.7	5.21	1.588	June 11	1600	1,740	49.3	5.80	1.768
Jan. 8	0430	1,630	46.2	5.66	1.725	June 22	2115	1,580	44.7	5.58	1.701
Jan. 21	1030	*4,640	131	*8.77	2.673	July 24	1615	1,580	44.7	5.58	1.701
Jan. 25	0215	3,460	98.0	7.76	2.365	July 30	0930	4,370	124	8.54	2.603
Feb. 25	0300	2,880	81.6	7.18	2.188	Aug. 3	1545	2,120	60.0	6.28	1.914
Feb. 26	1000	3,610	102	7.91	2.411	Sept. 6	1145	2,740	77.6	7.04	2.146
Mar. 6	1630	1,450	41.1	5.40	1.646	Sept. 22	0345	1,940	54.9	6.05	1.844
May 24	0415	3,500	99.1	7.80	2.377	Sept. 30	1100	2,140	60.6	6.30	1.920

Minimum discharge, 20 ft³/s (0.57 m³/s) Oct. 15, 16, gage height, 2.29 ft (0.698 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	25	34	80	121	165	65	67	99	72	77	32
2	34	25	29	568	105	141	72	65	89	72	72	35
3	28	25	28	240	99	113	83	67	181	51	173	43
4	46	26	121	86	93	99	83	74	286	65	102	32
5	33	25	169	74	89	105	99	67	121	70	49	38
6	39	25	40	67	85	736	70	65	99	48	45	1300
7	25	25	33	169	80	282	67	65	153	45	40	72
8	24	26	48	1010	80	153	65	65	125	45	39	48
9	23	26	1150	169	76	125	189	65	89	45	36	42
10	24	26	185	129	72	113	227	65	80	43	42	40
11	24	26	65	125	70	282	80	63	682	43	65	38
12	24	26	52	125	70	113	74	113	165	42	400	38
13	24	27	48	169	75	99	70	86	102	80	113	35
14	33	27	43	273	70	99	452	96	89	165	52	89
15	24	27	40	99	75	89	137	80	80	169	49	93
16	25	40	39	77	70	83	93	65	74	153	43	38
17	56	43	43	74	65	80	86	63	86	248	39	35
18	25	141	39	70	70	80	77	189	77	99	52	34
19	25	30	39	70	80	77	77	583	67	93	67	40
20	24	25	40	105	100	74	74	109	63	48	42	34
21	23	25	102	2900	150	72	72	67	61	59	51	56
22	24	25	42	290	189	72	70	59	117	48	40	745
23	24	26	36	157	185	70	70	409	149	49	36	80
24	25	48	83	1030	1040	340	67	1410	61	141	63	49
25	25	26	561	1070	1450	133	70	624	56	51	45	45
26	26	25	70	265	1860	83	109	173	56	70	46	45
27	51	31	54	214	340	72	307	129	52	54	38	40
28	27	59	48	181	210	70	80	129	52	40	45	40
29	25	56	46	165	---	74	72	157	89	40	80	72
30	25	129	43	145	---	70	67	149	54	1330	45	865
31	25	---	48	129	---	67	---	109	---	83	34	---
TOTAL	927	1116	3418	10345	7069	4231	3224	5527	3554	3661	2122	4193
MEAN	29.9	37.2	110	334	252	136	107	178	118	118	68.5	140
MAX	67	141	1150	2900	1860	736	452	1410	682	1330	400	1300
MIN	23	25	28	67	65	67	65	59	52	40	34	32
CFSM	.60	.75	2.21	6.71	5.06	2.73	2.15	3.57	2.37	2.37	1.38	2.81
IN.	.69	.83	2.55	7.73	5.28	3.16	2.41	4.13	2.65	2.73	1.59	3.13

CAL YR 1978 TOTAL 41316 MEAN 113 MAX 2400 MIN 23 CFSM 2.27 IN 30.86
WTR YR 1979 TOTAL 49387 MEAN 135 MAX 2900 MIN 23 CFSM 2.71 IN 36.89

PENNYPACK CREEK BASIN

01467050 WOODEN BRIDGE RUN AT PHILADELPHIA, PA

LOCATION.--Lat 40°03'19", long 75°01'22", Philadelphia County, Hydrologic Unit 02040203, on left bank 200 ft (61 m) upstream from Penn Central Railroad bridge, 600 ft (183 m) southeast of Holme Avenue and 1,500 ft (457 m) upstream from mouth in Philadelphia.

DRAINAGE AREA.--3.35 mi² (8.68 km²).

PERIOD OF RECORD.--June 1965 to September 1970, October 1974 to current year.

REVISED RECORDS.--WDR PA-76-1: 1974.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 29.69 ft (9.050 m) National Geodetic Vertical Datum of 1929. Prior to July 6, 1966 water-stage recorder at site 300 ft (91 m) downstream at same datum.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years (Water years 1966-70, 1975-79), 5.74 ft³/s (0.163 m³/s), 23.26 in/yr (591 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,860 ft³/s (52.7 m³/s) Aug. 27, 1967, gage height, 12.20 ft (3.719 m), from rating curve extended above 300 ft³/s (8.5 m³/s) on basis of flow through culvert at gage height 11.96 ft (3.645 m); minimum, 0.1 ft³/s (0.003 m³/s) Aug. 14, 15, 22, 1966, gage height, 1.44 ft (0.439 m) at former site, 3.28 ft (1.000 m) at present site.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.50 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 9	0700	591	16.7	7.21	2.198	June 11	1300	505	14.3	6.88	2.097
Jan. 7	2400	451	12.8	6.67	2.033	June 22	2215	632	17.9	7.37	2.246
Jan. 21	0415	879	24.9	8.26	2.518	July 14	1615	468	13.3	6.74	2.054
Jan. 24	2000	635	18.0	7.38	2.249	July 16	2115	505	14.3	6.88	2.097
Feb. 24	2230	384	10.9	6.39	1.948	July 24	1645	*990	28.0	*8.67	2.643
Feb. 26	0245	686	19.4	7.57	2.307	July 26	2015	549	15.5	7.05	2.149
Mar. 6	1130	309	8.75	6.06	1.847	Aug. 3	1730	921	26.1	8.41	2.563
May 23	2330	798	22.6	7.97	2.429	Sept. 6	0630	476	13.5	6.77	2.063
June 7	1830	666	18.9	7.50	2.286	Sept. 14	2000	342	9.69	6.21	1.893

Minimum discharge, 0.65 ft³/s (0.018 m³/s) Nov. 2, 5, 6 8, 10, gage height, 3.24 ft (0.988 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	.90	1.4	5.6	2.7	4.1	2.1	2.1	4.2	2.3	2.4	1.1
2	1.5	.83	1.0	68	2.5	3.7	3.7	2.0	2.4	2.1	5.4	1.3
3	1.2	.72	1.1	7.3	2.3	2.8	5.7	2.3	9.4	1.5	73	3.1
4	4.2	.73	14	2.6	2.3	2.7	5.4	2.7	24	5.6	13	1.2
5	1.5	.72	15	2.3	2.1	4.0	4.5	2.1	3.9	2.1	2.5	2.4
6	3.1	.69	1.7	2.8	2.1	72	2.4	1.8	3.2	1.4	2.1	79
7	1.0	.74	1.4	48	2.1	10	2.2	1.8	45	1.4	1.8	2.5
8	.92	.70	7.5	74	2.6	4.8	2.3	2.2	7.1	1.4	1.7	1.5
9	.88	.72	128	4.6	2.3	4.0	21	2.2	3.2	1.3	1.6	1.3
10	1.0	.72	6.3	3.1	2.3	3.5	9.0	2.0	2.7	1.3	2.3	1.5
11	.99	.72	2.4	2.5	2.2	17	2.7	2.0	102	1.3	16	1.8
12	1.0	.70	2.0	2.4	2.7	4.1	2.8	12	6.3	1.3	29	1.8
13	1.0	.72	1.9	18	2.7	3.7	2.1	5.9	3.4	8.4	4.8	1.8
14	1.7	.80	1.7	8.8	2.4	4.3	31	5.0	2.9	35	1.9	20
15	.89	1.1	1.6	2.9	2.7	3.4	4.8	2.9	2.7	13	1.7	3.4
16	1.5	3.0	1.4	2.4	2.6	3.2	3.4	2.4	2.5	37	1.6	1.6
17	4.7	4.3	2.1	2.9	2.1	3.1	2.9	2.2	3.4	8.7	1.4	1.8
18	1.5	13	1.4	2.3	2.3	2.9	2.6	16	2.5	12	6.5	1.8
19	1.6	1.1	1.4	2.1	3.3	3.0	2.7	40	2.2	3.2	2.7	1.1
20	1.3	.89	1.9	18	3.5	3.2	2.3	7.2	2.2	2.5	1.4	1.1
21	.97	1.1	9.0	222	20	3.1	2.1	3.1	2.2	3.1	5.2	14
22	.87	.85	1.7	6.7	23	3.1	2.1	2.6	43	2.1	1.5	34
23	.89	1.2	1.4	3.8	14	3.0	2.1	[illegible]	6.4	2.1	1.4	4.1
24	.89	3.3	22	110	151	26	2.2	72	2.1	81	4.6	1.6
25	.94	.93	31	14	72	5.7	2.5	48	1.8	4.1	1.6	1.4
26	.96	.87	2.6	5.5	100	3.4	18	4.9	1.6	40	1.5	1.3
27	4.5	2.7	2.0	4.1	10	2.8	7.6	3.3	1.6	5.6	1.8	1.3
28	.84	8.7	1.7	3.6	4.6	2.8	3.0	2.8	1.6	2.1	2.1	1.2
29	.76	7.8	1.6	3.3	---	3.0	2.6	2.6	4.3	3.1	20	6.5
30	.77	8.2	1.5	3.0	---	2.6	2.2	2.7	1.6	37	2.1	29
31	.89	---	2.5	2.8	---	2.3	---	3.7	---	2.3	1.3	---
TOTAL	50.56	69.35	272.2	659.4	484.6	217.7	160.0	331.5	303.6	325.3	215.9	225.1
MEAN	1.63	2.31	8.78	21.3	15.9	7.02	5.33	10.7	10.1	10.5	6.96	7.50
MAX	5.8	13	128	222	151	72	31	72	102	81	73	79
MIN	.76	.69	1.0	2.1	2.1	2.3	2.1	1.8	1.6	1.3	1.3	1.1
CFSM	.49	.69	2.62	6.36	4.75	2.10	1.59	3.19	3.02	3.13	2.08	2.24
IN.	.56	.77	3.02	7.32	4.94	2.42	1.78	3.68	3.37	3.61	2.40	2.50

CAL YR 1978 TOTAL 2628.21 MEAN 7.20 MAX 185 MIN .69 CFSM 2.15 IN 29.18
WTR YR 1979 TOTAL 3275.21 MEAN 8.97 MAX 222 MIN .69 CFSM 2.68 IN 36.36

01467086 TACONY CREEK AT COUNTY LINE, PHILADELPHIA, PA

LOCATION.--Lat 40°02'33", long 75°06'47", Philadelphia County, Hydrologic Unit 02040203, on left bank 20 ft (6 m) upstream from dam, 120 ft (37 m) upstream from Adams Avenue bridge in Philadelphia.

DRAINAGE AREA.--16.7 mi² (43.2 km²).

PERIOD OF RECORD.--October 1965 to September 1970, July 1974 to current year.

REVISED RECORDS.--WDR PA-76-1: 1974.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 61.11 ft (18.626 m) National Geodetic Vertical Datum of 1929. Prior to June 1972 recording gage at site 1,600 ft (490 m) upstream at same datum.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years (Water years 1966-70, 1975-79), 26.6 ft³/s (0.753 m³/s), 21.62 in/yr (549 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,550 ft³/s (129 m³/s) Aug. 27, 1967, gage height, 13.19 ft (4.020 m), from rating curve extended above 350 ft³/s (9.91 m³/s) on basis of slope-area measurement at gage height 9.06 ft (2.761 m); minimum, 1.8 ft³/s (0.051 m³/s) Sept. 12, 1966, gage height, 2.82 ft (0.860 m), at upstream site.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,100 ft³/s (31.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 21	0400	1,700	48.1	6.70	2.042	June 22	2200	1,340	37.9	6.03	1.838
Jan. 24	2000	1,340	37.9	6.04	1.841	Sept. 6	0530	2,060	58.3	7.31	2.228
Feb. 26	0345	1,840	52.1	6.94	2.115	Sept. 14	1930	1,160	32.9	5.67	1.728
May 23	2315	*2,500	70.8	*8.01	2.441						

Minimum discharge, 7.2 ft³/s (0.20 m³/s) Nov. 23, minimum gage height, 2.22 ft (0.677 m) Nov. 23, Aug. 9, Sept. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	11	9.1	30	32	47	21	20	29	34	15	11
2	11	13	9.1	188	30	43	24	20	26	19	21	35
3	8.1	15	9.1	35	29	40	30	21	47	17	64	17
4	26	17	50	21	27	39	30	21	66	30	37	10
5	9.1	16	54	20	27	40	30	20	27	20	14	17
6	19	11	11	21	26	176	21	19	26	16	14	312
7	9.1	9.1	9.1	121	26	55	20	19	32	15	13	19
8	9.1	9.1	29	197	26	43	20	19	24	15	12	15
9	9.1	11	274	37	24	39	66	17	23	14	11	13
10	9.1	11	32	30	24	39	40	16	21	15	22	12
11	9.1	11	19	27	24	77	23	16	157	14	44	13
12	9.1	12	16	26	27	37	24	32	30	15	125	12
13	10	12	15	88	24	35	21	30	24	104	24	12
14	16	12	15	50	21	35	111	26	23	54	15	85
15	9.1	16	13	27	20	32	29	17	21	19	14	19
16	12	21	13	24	20	30	26	15	21	56	13	12
17	26	23	16	24	20	30	24	15	30	28	13	11
18	9.1	50	16	23	19	30	24	70	21	67	33	11
19	9.1	9.1	15	20	20	30	23	135	19	20	18	11
20	11	8.1	16	70	21	29	21	29	19	16	13	11
21	10	8.1	35	552	37	29	21	20	19	26	20	63
22	11	8.1	12	57	66	27	21	19	105	15	13	115
23	9.1	9.1	11	39	40	29	21	272	47	20	12	25
24	10	17	72	304	347	103	21	193	23	61	29	16
25	10	10	122	86	259	32	23	116	21	18	18	14
26	11	10	17	55	334	26	81	42	20	40	13	12
27	23	13	16	47	73	24	50	35	19	17	15	12
28	9.1	29	15	42	54	24	23	57	20	14	15	12
29	9.1	23	13	39	---	26	21	42	28	14	41	36
30	10	40	13	35	---	23	20	32	20	48	13	172
31	11	---	17	34	---	23	---	30	---	19	11	---
TOTAL	410.4	464.7	983.4	2369	1697	1292	930	1435	1008	882	735	1133
MEAN	13.2	15.5	31.7	76.4	60.6	41.7	31.0	46.3	33.6	28.5	23.7	37.8
MAX	57	50	274	552	347	176	111	272	157	104	125	312
MIN	8.1	8.1	9.1	20	19	23	20	15	19	14	11	10
CFSM	.79	.93	1.90	4.58	3.63	2.50	1.86	2.77	2.01	1.71	1.42	2.26
IN.	.91	1.04	2.19	5.28	3.78	2.88	2.07	3.20	2.25	1.96	1.64	2.52

CAL YR 1978 TOTAL 11946.5 MEAN 32.7 MAX 455 MIN 8.1 CFSM 1.96 IN 26.61
WTR YR 1979 TOTAL 13339.5 MEAN 36.5 MAX 552 MIN 8.1 CFSM 2.19 IN 29.71

FRANKFORD CREEK BASIN

01467089 FRANKFORD CREEK AT TORRESDALE AVENUE, PHILADELPHIA, PA

LOCATION.--Lat 40°00'25", long 75°05'33", Philadelphia County, Hydrologic Unit 02040203, on left bank at Worrell Avenue, 400 ft (122 m) upstream from Torresdale Avenue, 1.5 mi (2.4 km) west of Frankford Arsenal in Philadelphia.

DRAINAGE AREA.--33.8 mi² (87.5 km²).

PERIOD OF RECORD.--October 1965 to September 1970, October 1974 to current year.

REVISED RECORDS.--WDR PA-67: 1966(M).

GAGE.--Water-stage recorder, concrete control, and crest-stage gage. Datum of gage is 1.08 ft (0.329 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years (Water years 1966-70, 1975-79), 58.9 ft³/s (1.668 m³/s), 23.68 in/yr (601 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,550 ft³/s (242 m³/s) July 14, 1975, gage height, 13.47 ft (4.106 m), from rating curve extended above 1,300 ft³/s (36.8 m³/s); minimum, 0.11 ft³/s (0.003 m³/s) Sept. 7, 1978, gage height, 2.43 ft (0.741 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 9	0630	3,000	85.0	8.75	2.667	July 13	1845	4,580	130	10.30	3.139
Jan. 21	1530	4,240	120	9.99	3.045	July 16	2130	4,370	124	10.11	3.082
Jan. 23	0215	3,480	98.6	9.25	2.819	July 24	1600	3,550	101	9.32	2.841
Feb. 26	0245	4,350	123	10.09	3.075	Sept. 6	0545	5,260	149	10.91	3.325
May 23	2245	*7,700	218	*12.85	3.917	Sept. 14	1945	3,260	92.3	9.03	2.752
June 22	2145	5,500	156	11.11	3.386						

Minimum discharge, 15 ft³/s (0.42 m³/s) Nov. 3, 11, 26, gage height, 3.56 ft (1.085 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	16	20	59	37	74	36	30	46	67	23	18
2	28	17	19	524	34	67	46	29	33	22	44	82
3	20	16	22	39	34	58	56	27	116	17	235	33
4	80	17	135	30	34	49	54	27	151	50	92	20
5	34	19	140	28	32	79	45	27	41	20	21	46
6	57	18	19	36	34	464	36	27	38	17	20	922
7	17	16	18	521	32	75	39	27	60	17	19	30
8	16	16	65	305	34	63	58	27	39	17	18	20
9	17	17	786	54	30	66	234	25	41	16	18	19
10	17	16	42	48	29	65	71	25	39	16	72	18
11	17	16	23	42	27	181	45	30	476	16	136	18
12	22	17	20	39	35	58	54	74	46	20	338	19
13	18	23	19	268	30	55	36	88	33	399	41	19
14	53	23	18	94	28	60	310	63	28	163	20	212
15	16	18	18	40	27	55	69	45	25	31	19	29
16	35	26	18	38	26	50	41	21	24	207	18	16
17	65	53	25	38	26	45	41	22	71	58	20	16
18	22	147	30	39	26	40	33	230	22	125	61	17
19	17	17	25	41	30	37	33	318	20	27	29	17
20	21	16	35	51	32	35	31	43	19	21	23	17
21	18	16	100	1380	127	33	30	28	19	44	36	152
22	18	16	17	311	282	32	29	28	294	20	23	320
23	18	29	17	100	116	35	28	670	110	34	20	48
24	16	32	240	700	954	326	28	609	33	211	75	38
25	17	16	294	150	568	58	35	291	24	28	25	23
26	16	16	23	100	967	38	262	120	25	87	23	17
27	54	27	20	80	256	35	120	76	21	26	30	16
28	16	53	20	65	90	35	40	130	20	20	24	19
29	16	83	20	49	---	46	35	63	36	22	127	76
30	16	87	30	39	---	41	30	54	21	57	29	430
31	16	---	45	40	---	39	---	39	---	85	18	---
TOTAL	972	899	2323	5348	3899	2394	2005	3313	1971	1960	1697	2727
MEAN	31.4	30.0	74.9	173	139	77.2	66.8	107	65.7	63.2	54.7	90.9
MAX	179	147	786	1380	967	464	310	670	476	399	338	922
MIN	16	16	17	28	26	32	28	21	19	16	18	16
CFSM	.93	.89	2.22	5.12	4.11	2.28	1.98	3.17	1.94	1.87	1.62	2.69
IN.	1.07	.99	2.56	5.89	4.29	2.63	2.21	3.65	2.17	2.16	1.87	3.00

CAL YR 1978 TOTAL 25374.2 MEAN 69.5 MAX 1310 MIN 3.7 CFSM 2.06 IN 27.93
WTR YR 1979 TOTAL 29508.0 MEAN 80.8 MAX 1380 MIN 16 CFSM 2.39 IN 32.48

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA

LOCATION.--Lat 39°57'11", long 75°08'05", Philadelphia County, Hydrologic Unit 02040202, at center of river on a line 200 ft (61 m) upstream of bridge from the north side of pier 12 north through channel station +14.3 to pierhead line on New Jersey side of river.

DRAINAGE AREA.--7,993 mi² (20,700 km²).

PERIOD OF RECORD.--August 1949 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1963 to current year.
pH: October 1967 to current year.
WATER TEMPERATURES: November 1960 to current year.
DISSOLVED OXYGEN: November 1960 to current year.

REMARKS.--Water-quality recorder (30°57'10", 75°08'18") located at river end of pier 11 north about 100 ft (30 m) downstream from bridge. Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1809-0. Interruptions in the record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,450 micromhos Nov. 20, 1964; minimum, 65 micromhos Sept. 15, 1979.
pH: Maximum, 8.1 Mar. 19, 1975; minimum, 4.7 Dec. 29, 1978.
WATER TEMPERATURES: Maximum, 31.0°C, July 13-15, 1966; minimum, freezing point on many days during winter months.
DISSOLVED OXYGEN: Maximum, 14.1 mg/L Dec. 14, 1962; minimum, 0.0 mg/L on many days each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 381 micromhos Oct. 30; minimum, 65 micromhos Sept. 15.
pH: Maximum, 7.5 Jan. 26; minimum, 4.7 Dec. 29.
WATER TEMPERATURES: Maximum, 28.0°C July 16-18, Aug. 2-8, 10, 11; minimum, 1.5°C Jan. 26.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)
APR 28...	1415	152	7.6	13.5	20	56	29	15	4.5	9.9	1.7	33

DATE	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)
APR 28...	0	27	1.3	25	13	102	.78	.03	.81	1.6	.69	39

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN,TOT IN BOT-TOM MA-TERIAL (MG/KG AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO. TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
APR 28...	.15	.84	5200	1.7	5200	.240	.07	270	3	<10	80

DATE	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)
APR 28...	10	80	18000	180	470	.26	0	460	5.0	47	1.4

DATE	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
APR 28...	380	.0	6	10	30	.0	3.8	.0	.0	.0	0

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	344	325	336	371	321	349	338	299	319	233	211	226
2	345	324	336	373	324	351	336	302	318	231	207	221
3	352	323	339	370	324	349	337	289	314	214	200	207
4	358	322	344	373	321	350	334	301	317	209	157	184
5	353	324	340	375	326	353	320	285	306	153	112	130
6	350	320	338	370	304	338	315	263	296	138	112	124
7	349	312	334	341	305	323	304	274	291	167	123	139
8	344	308	329	343	302	322	305	277	290	161	143	152
9	345	306	325	344	304	321	300	250	275	163	148	154
10	353	303	328	337	302	320	262	233	242	161	150	155
11	361	312	337	344	308	325	240	229	235	161	144	155
12	367	322	345	340	307	324	234	212	226	162	142	151
13	368	330	349	348	306	327	226	202	216	179	145	159
14	367	331	353	346	306	327	213	196	203	181	168	173
15	365	330	349	341	305	323	216	193	207	176	165	172
16	369	331	351	342	303	321	216	194	206	180	169	174
17	368	330	350	358	298	328	215	188	205	191	172	180
18	---	---	---	344	301	324	203	187	196	203	182	191
19	---	---	---	307	291	299	211	192	202	207	195	200
20	---	---	---	---	---	---	222	195	208	235	202	211
21	---	---	---	---	---	---	224	204	214	238	202	220
22	---	---	---	343	298	326	218	203	212	201	161	179
23	---	---	---	353	303	325	220	203	212	162	131	143
24	---	---	---	338	299	318	219	201	210	149	125	133
25	371	335	357	323	285	306	214	199	207	133	81	113
26	368	335	355	331	285	306	208	199	204	96	82	91
27	367	321	346	336	290	316	221	206	213	90	79	84
28	375	330	352	346	303	325	225	213	219	86	75	81
29	376	337	356	336	299	317	226	218	222	86	74	79
30	381	334	357	343	298	318	230	221	226	87	77	82
31	378	329	354	---	---	---	232	217	226	100	81	90
MONTH	381	303	344	375	285	326	338	187	240	238	74	153

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	109	89	98	---	---	---	119	104	111	184	170	177
2	102	83	92	---	---	---	118	104	112	178	161	173
3	92	82	87	---	---	---	127	113	118	171	144	160
4	87	77	81	---	---	---	129	118	124	159	141	149
5	81	74	77	---	---	---	135	125	129	149	138	144
6	81	74	76	121	105	111	134	124	129	150	135	145
7	---	---	---	115	83	104	130	123	127	152	140	147
8	---	---	---	---	---	---	136	127	131	158	147	153
9	---	---	---	---	---	---	141	127	134	164	154	159
10	---	---	---	---	---	---	135	125	130	174	160	166
11	---	---	---	---	---	---	139	127	133	188	167	177
12	---	---	---	---	---	---	139	129	134	188	175	183
13	---	---	---	---	---	---	137	127	133	189	172	183
14	---	---	---	---	---	---	140	122	134	188	173	182
15	---	---	---	102	93	96	134	117	127	193	177	187
16	---	---	---	105	94	98	143	117	125	199	185	194
17	---	---	---	107	98	102	135	119	128	203	190	198
18	---	---	---	109	101	105	129	121	125	208	195	203
19	---	---	---	116	102	108	131	120	126	212	198	205
20	---	---	---	119	108	113	130	119	125	213	195	204
21	---	---	---	126	113	119	130	121	127	214	192	206
22	116	104	110	131	120	125	133	122	128	214	173	196
23	---	---	---	136	124	130	137	124	131	187	174	182
24	---	---	---	140	129	135	142	129	136	186	165	174
25	---	---	---	142	132	137	147	137	142	174	160	170
26	---	---	---	142	135	138	154	144	148	169	129	153
27	---	---	---	143	136	139	155	147	152	140	97	124
28	---	---	---	141	132	138	159	148	155	110	87	99
29	---	---	---	141	118	134	167	153	159	94	82	88
30	---	---	---	135	110	123	177	160	167	100	85	91
31	---	---	---	125	108	116	---	---	---	103	89	95
MONTH	116	74	89	143	83	120	177	104	133	214	82	163

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	106	97	102	264	248	258	281	244	263	242	204	222
2	114	102	107	266	249	259	280	248	266	246	206	225
3	117	107	112	277	253	263	281	253	266	246	203	225
4	123	111	117	280	257	268	282	245	264	249	200	230
5	132	117	128	278	260	269	281	251	266	251	206	230
6	137	126	131	281	264	272	281	256	269	257	165	219
7	148	131	139	285	271	278	283	259	273	206	152	177
8	158	140	149	291	278	284	292	270	278	175	146	161
9	163	153	157	296	282	290	---	---	---	159	134	151
10	169	157	163	301	288	296	298	280	290	155	111	138
11	171	162	168	306	293	301	300	278	290	154	97	128
12	175	164	169	313	295	307	295	256	277	138	96	118
13	179	166	174	317	301	311	261	226	244	132	88	113
14	189	171	182	317	300	310	227	198	217	129	89	114
15	191	181	187	315	294	308	206	171	190	121	65	94
16	195	185	191	316	292	306	200	171	185	117	66	89
17	200	189	195	314	284	300	206	181	193	113	71	90
18	205	194	201	304	279	293	211	178	195	118	71	92
19	216	201	209	304	247	273	210	184	195	117	74	98
20	222	211	217	269	245	258	207	176	193	133	92	111
21	227	208	221	274	251	263	204	177	191	136	97	116
22	234	219	227	273	253	264	204	179	192	130	86	106
23	237	217	229	274	257	266	207	181	195	107	84	94
24	236	216	229	---	---	---	213	184	198	107	91	97
25	235	218	229	---	---	---	212	180	198	110	96	103
26	246	227	237	---	---	---	210	182	198	105	91	101
27	257	229	243	283	253	271	225	182	209	104	82	97
28	255	231	246	293	256	274	230	199	215	109	84	98
29	257	239	251	293	255	273	235	200	218	110	86	100
30	263	245	255	284	247	267	233	203	218	109	81	97
31	---	---	---	276	238	262	238	204	219	---	---	---
MONTH	263	97	186	317	238	280	300	171	229	257	65	134

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.6	6.4	6.5	6.8	6.6	6.7	6.8	6.5	6.7	6.6	6.4	6.5
2	6.6	6.4	6.5	6.8	6.6	6.7	6.8	6.5	6.7	6.6	6.4	6.5
3	6.6	6.4	6.5	6.8	6.6	6.7	6.9	6.5	6.7	6.9	6.6	6.8
4	6.6	6.4	6.5	6.8	6.5	6.7	6.8	6.5	6.6	6.9	6.8	6.8
5	6.6	6.4	6.5	6.8	6.5	6.7	6.8	6.6	6.7	6.8	6.5	6.6
6	6.6	6.4	6.5	6.9	6.5	6.7	6.9	6.7	6.8	6.5	6.3	6.4
7	6.6	6.4	6.5	6.9	6.6	6.8	6.9	6.6	6.7	6.4	6.2	6.4
8	6.7	6.5	6.6	6.9	6.6	6.8	6.8	6.6	6.7	6.5	6.3	6.4
9	6.7	6.4	6.6	6.9	6.6	6.8	6.8	6.6	6.7	6.5	6.5	6.5
10	6.7	6.5	6.6	6.9	6.7	6.8	6.9	6.7	6.8	6.5	6.4	6.5
11	6.7	6.5	6.6	6.9	6.6	6.7	6.9	6.8	6.8	6.6	6.5	6.5
12	6.6	6.4	6.5	6.9	6.6	6.8	6.9	6.8	6.8	6.5	6.3	6.4
13	6.6	6.4	6.5	6.9	6.6	6.8	7.0	6.7	6.8	6.4	6.1	6.2
14	6.6	6.4	6.5	6.9	6.6	6.8	6.9	6.8	6.8	6.3	6.0	6.1
15	6.7	6.5	6.6	6.9	6.6	6.8	6.9	6.6	6.8	6.3	6.2	6.3
16	6.7	6.4	6.5	6.9	6.6	6.8	6.8	6.6	6.7	6.3	6.2	6.2
17	6.6	6.5	5.5	6.9	6.6	6.7	6.8	6.6	6.7	---	---	---
18	---	---	---	6.9	6.6	6.8	6.8	6.6	6.7	---	---	---
19	---	---	---	6.9	6.8	6.9	6.8	6.6	6.7	---	---	---
20	---	---	---	---	---	---	7.0	6.5	6.7	---	---	---
21	---	---	---	---	---	---	6.8	6.5	6.7	---	---	---
22	---	---	---	7.0	6.7	6.8	6.8	6.6	6.7	---	---	---
23	---	---	---	6.9	6.5	6.7	6.8	6.5	6.6	---	---	---
24	---	---	---	6.7	6.5	6.6	6.8	6.4	6.6	7.3	6.7	7.1
25	6.9	6.6	6.7	6.8	6.6	6.7	6.8	6.5	6.6	7.4	7.2	7.3
26	6.9	6.6	6.7	6.8	6.6	6.7	6.9	6.6	6.8	7.5	7.3	7.5
27	6.9	6.6	6.8	6.9	6.5	6.7	6.6	5.7	6.3	7.4	7.3	7.3
28	6.9	6.6	6.7	6.8	6.5	6.7	5.7	4.8	5.1	7.3	7.2	7.2
29	6.8	6.5	6.7	6.8	6.5	6.7	6.5	4.7	5.5	7.3	7.2	7.2
30	6.8	6.5	6.7	6.8	6.5	6.7	6.7	6.3	6.5	7.4	7.3	7.3
31	6.8	6.6	6.7	---	---	---	6.7	6.4	6.6	7.4	6.8	7.0
MONTH	6.9	6.4	6.6	7.0	6.5	6.7	7.0	4.7	6.6	7.5	6.0	6.7

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.9	6.8	6.8	7.2	6.3	6.6	6.8	6.6	6.7	7.1	6.8	7.0
2	6.8	6.7	6.8	6.8	6.3	6.5	6.9	6.7	6.8	7.1	6.9	7.0
3	6.8	6.5	6.7	7.1	6.8	7.0	6.9	6.7	6.8	7.0	6.8	6.8
4	6.7	6.4	6.5	7.1	6.8	7.0	7.1	6.7	6.9	6.8	6.7	6.7
5	6.6	6.5	6.6	---	---	---	7.0	6.8	6.9	6.9	6.7	6.8
6	6.6	6.5	6.5	7.3	6.9	7.2	7.0	6.7	6.9	6.9	6.7	6.8
7	---	---	---	7.3	7.1	7.2	7.0	6.9	6.9	6.8	6.7	6.8
8	---	---	---	7.1	6.9	7.0	7.0	6.8	6.9	6.8	6.7	6.8
9	---	---	---	---	---	---	7.0	6.7	6.9	6.8	6.6	6.7
10	---	---	---	---	---	---	7.0	6.9	7.0	6.8	6.6	6.7
11	---	---	---	---	---	---	7.0	6.8	6.9	6.8	6.6	6.7
12	---	---	---	---	---	---	7.0	6.8	6.9	6.7	6.5	6.6
13	---	---	---	---	---	---	7.1	6.9	7.0	6.7	6.4	6.5
14	---	---	---	---	---	---	7.0	6.9	7.0	6.7	6.5	6.6
15	---	---	---	7.0	6.2	6.4	7.0	6.9	7.0	6.7	6.4	6.5
16	---	---	---	7.1	6.5	6.7	7.1	6.8	7.0	6.6	6.5	6.5
17	---	---	---	7.1	7.0	7.0	7.0	6.8	6.9	6.6	6.4	6.5
18	---	---	---	7.0	6.8	6.9	6.8	6.7	6.8	6.6	6.4	6.5
19	---	---	---	6.9	6.7	6.8	6.8	6.6	6.7	6.5	6.4	6.5
20	---	---	---	6.8	6.7	6.7	6.7	6.6	6.6	6.5	6.4	6.5
21	---	---	---	7.2	6.7	7.0	6.7	6.5	6.6	6.5	6.4	6.5
22	7.1	6.7	6.9	7.0	6.5	6.7	6.7	6.5	6.6	6.6	6.4	6.5
23	---	---	---	6.8	6.4	6.7	7.4	6.5	7.0	6.5	6.3	6.4
24	---	---	---	6.5	5.9	6.3	7.3	7.1	7.2	6.5	6.3	6.4
25	---	---	---	6.6	5.8	6.2	7.2	6.9	7.0	6.5	6.4	6.5
26	---	---	---	6.9	6.6	6.8	7.1	6.9	7.0	6.5	6.4	6.4
27	---	---	---	7.0	6.9	7.0	7.0	6.8	6.9	6.5	6.4	6.4
28	---	---	---	7.4	7.0	7.1	7.0	6.8	6.9	6.4	6.3	6.3
29	---	---	---	7.1	6.4	6.8	7.0	6.8	6.9	6.3	6.1	6.2
30	---	---	---	6.7	5.8	6.2	7.0	6.8	6.9	6.6	6.1	6.4
31	---	---	---	6.7	6.6	6.7	---	---	---	6.5	6.3	6.4
MONTH	7.1	6.4	6.7	7.4	5.8	6.8	7.4	6.5	6.9	7.1	6.1	6.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.4	6.2	6.3	6.6	6.3	6.4	6.6	6.4	6.5	---	---	---
2	6.3	6.2	6.2	6.6	6.4	6.5	6.6	6.1	6.4	---	---	---
3	6.2	6.1	6.1	6.6	6.4	6.5	6.5	6.2	6.3	---	---	---
4	6.2	6.1	6.1	6.6	6.4	6.5	6.4	6.2	6.3	---	---	---
5	7.0	6.1	6.3	6.7	6.4	6.6	6.4	6.2	6.3	---	---	---
6	6.5	6.3	6.4	6.8	6.6	6.7	6.3	6.1	6.2	---	---	---
7	6.4	6.2	6.3	6.8	6.6	6.7	6.4	6.1	6.3	---	---	---
8	6.4	6.2	6.3	6.8	6.7	6.7	6.5	6.2	6.4	---	---	---
9	6.3	6.2	6.2	6.8	6.6	6.7	---	---	---	---	---	---
10	6.3	6.1	6.2	6.8	6.7	6.7	6.4	6.3	6.3	---	---	---
11	6.4	6.1	6.2	6.8	6.6	6.7	6.4	6.2	6.3	---	---	---
12	6.4	6.2	6.3	6.8	6.4	6.6	6.2	6.0	6.1	---	---	---
13	6.4	6.2	6.3	6.6	6.5	6.5	6.2	6.0	6.1	---	---	---
14	6.4	6.2	6.3	6.5	6.4	6.4	6.5	6.2	6.4	---	---	---
15	6.4	6.2	6.3	6.5	6.5	6.5	6.7	6.3	6.5	---	---	---
16	6.4	6.2	6.3	6.5	6.4	6.5	6.5	6.4	6.5	---	---	---
17	6.4	6.2	6.3	6.4	6.4	6.4	6.5	6.3	6.4	---	---	---
18	6.3	6.2	6.3	6.4	6.4	6.4	6.5	6.3	6.4	---	---	---
19	6.4	6.2	6.4	6.5	6.4	6.4	6.7	6.3	6.5	---	---	---
20	6.4	6.2	6.3	6.5	6.4	6.4	6.6	6.3	6.6	---	---	---
21	6.4	6.2	6.3	6.4	6.4	6.4	6.5	6.2	6.3	---	---	---
22	6.4	6.2	6.3	6.4	6.4	6.4	---	---	---	---	---	---
23	6.4	6.2	6.3	6.4	6.3	6.4	---	---	---	---	---	---
24	6.4	6.3	6.3	---	---	---	---	---	---	---	---	---
25	6.4	6.3	6.4	---	---	---	---	---	---	---	---	---
26	6.6	6.2	6.4	---	---	---	---	---	---	---	---	---
27	6.5	6.3	6.4	6.6	6.3	6.5	---	---	---	6.5	6.2	6.4
28	6.5	6.3	6.4	6.7	6.4	6.6	---	---	---	6.7	6.2	6.4
29	6.5	6.3	6.4	6.6	6.4	6.5	---	---	---	6.8	6.3	6.5
30	6.5	6.3	6.4	6.7	6.6	6.6	---	---	---	6.6	6.2	6.4
31	---	---	---	6.7	6.5	6.6	---	---	---	---	---	---
MONTH	7.0	6.1	6.3	6.8	6.3	6.5	6.7	6.0	6.4	6.8	6.2	6.4

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.5	22.0	22.0	16.5	16.0	16.5	11.0	10.0	10.5	4.5	4.0	4.0
2	22.0	22.0	22.0	16.5	16.5	16.5	10.5	9.5	10.0	5.5	4.5	5.0
3	22.0	21.5	22.0	16.5	16.0	16.5	10.0	9.5	9.5	5.5	4.5	5.0
4	21.5	21.5	21.5	16.5	16.0	16.0	10.5	9.5	10.0	6.0	4.5	5.5
5	21.5	21.5	21.5	16.5	16.0	16.0	10.0	9.5	10.0	4.0	2.0	3.0
6	21.5	21.5	21.5	16.0	16.0	16.0	10.0	9.0	9.5	2.5	1.5	2.0
7	21.5	20.5	21.0	16.0	16.0	16.0	10.0	9.0	9.5	2.5	2.0	2.0
8	20.5	20.0	20.5	16.0	15.5	16.0	10.0	9.0	9.5	3.0	2.5	2.5
9	20.0	19.5	20.0	16.0	15.5	16.0	10.0	9.5	9.5	3.0	3.0	3.0
10	20.0	19.0	19.5	16.0	15.5	15.5	9.5	8.5	9.0	3.5	3.0	3.0
11	20.0	19.5	19.5	16.0	15.5	15.5	8.5	8.0	8.5	3.0	2.0	2.5
12	20.0	19.5	19.5	16.0	15.0	15.5	8.5	8.0	8.0	2.5	1.5	2.0
13	20.0	19.5	20.0	15.5	15.0	15.5	8.0	7.5	8.0	2.0	1.5	2.0
14	20.0	19.5	20.0	15.5	15.0	15.5	8.0	6.5	7.0	2.0	1.5	2.0
15	20.0	19.0	19.5	15.5	15.0	15.5	7.0	6.0	6.5	2.0	1.5	2.0
16	19.5	19.0	19.0	15.5	15.0	15.0	6.5	5.5	6.0	2.0	1.5	2.0
17	19.0	18.5	18.5	15.0	14.5	15.0	6.5	5.0	6.0	2.5	2.0	2.0
18	---	---	---	15.0	14.5	15.0	5.5	5.0	5.5	2.5	2.0	2.0
19	---	---	---	14.5	14.5	14.5	5.5	5.0	5.0	2.5	2.0	2.0
20	---	---	---	---	---	---	5.5	4.5	5.0	2.0	1.5	2.0
21	---	---	---	---	---	---	5.5	5.0	5.5	2.5	2.0	2.0
22	---	---	---	14.0	13.5	13.5	5.5	4.5	5.0	2.5	2.5	2.5
23	---	---	---	13.5	13.0	13.0	5.0	4.5	5.0	3.0	2.5	2.5
24	---	---	---	13.0	12.5	13.0	5.0	4.5	4.5	3.5	2.5	3.0
25	17.5	17.0	17.5	12.5	12.0	12.5	5.0	5.0	5.0	4.0	3.5	4.0
26	17.5	17.0	17.0	12.0	11.5	12.0	5.0	4.5	4.5	4.0	3.5	3.5
27	17.5	17.0	17.0	11.5	11.0	11.0	5.0	4.5	4.5	3.5	3.0	3.5
28	17.0	16.5	17.0	11.5	10.5	11.0	4.5	4.0	4.5	3.0	2.5	3.0
29	17.0	16.5	17.0	11.0	10.5	10.5	4.5	4.0	4.0	4.0	3.0	3.5
30	17.0	16.5	16.5	11.0	10.5	10.5	4.0	4.0	4.0	4.0	3.5	4.0
31	16.5	16.5	16.5	---	---	---	4.0	4.0	4.0	4.0	4.0	4.0
MONTH	22.5	16.5	19.5	16.5	10.5	14.5	11.0	4.0	7.0	6.0	1.5	3.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.0	4.0	4.0	3.5	3.0	3.5	11.0	10.5	10.5	18.0	17.0	17.5
2	4.0	3.5	4.0	4.5	3.5	4.0	11.0	10.5	10.5	18.0	17.0	17.5
3	4.0	3.5	3.5	5.0	4.0	4.5	11.5	10.5	11.0	18.0	17.5	17.5
4	3.5	3.0	3.5	5.5	4.5	5.0	11.5	11.0	11.0	18.0	17.5	17.5
5	3.0	2.5	3.0	---	---	---	12.0	11.0	11.5	18.0	17.5	17.5
6	2.5	2.0	2.5	7.0	6.5	6.5	12.0	11.5	11.5	18.0	17.5	18.0
7	---	---	---	7.5	6.5	7.0	11.5	11.0	11.0	18.5	18.0	18.0
8	---	---	---	7.5	5.0	6.5	11.0	10.5	10.5	19.0	18.5	18.5
9	---	---	---	---	---	---	10.5	10.0	10.5	20.0	19.0	19.5
10	---	---	---	---	---	---	10.5	9.5	10.0	20.5	19.5	20.0
11	---	---	---	---	---	---	10.5	9.5	10.0	21.0	20.0	20.5
12	---	---	---	---	---	---	10.0	10.0	10.0	20.5	20.5	20.5
13	---	---	---	---	---	---	10.0	9.5	10.0	21.0	20.5	20.5
14	---	---	---	---	---	---	10.0	9.5	9.5	21.0	20.5	21.0
15	---	---	---	6.5	6.0	6.5	10.5	9.5	10.0	21.5	20.5	21.0
16	---	---	---	6.5	6.0	6.5	10.5	10.0	10.5	22.0	21.0	21.5
17	---	---	---	7.0	6.0	6.5	11.0	10.5	10.5	22.5	21.0	21.5
18	---	---	---	7.0	6.5	6.5	11.5	10.5	11.0	22.0	21.5	21.5
19	---	---	---	7.5	6.5	7.0	11.5	11.0	11.0	21.5	21.0	21.5
20	---	---	---	8.0	7.0	7.5	12.0	11.0	11.5	21.5	21.0	21.0
21	---	---	---	8.0	7.5	8.0	12.5	11.5	12.0	21.5	21.0	21.0
22	2.5	2.0	2.0	8.5	8.0	8.0	12.5	12.0	12.0	21.5	21.0	21.0
23	---	---	---	9.5	8.5	9.0	13.5	12.5	13.0	21.5	21.0	21.0
24	---	---	---	10.0	9.0	9.5	14.0	13.0	13.5	21.5	21.0	21.5
25	---	---	---	10.5	9.5	10.0	14.5	13.5	14.0	21.5	21.0	21.0
26	---	---	---	11.0	10.0	10.5	15.5	14.0	14.5	21.0	19.5	20.5
27	---	---	---	11.5	10.5	11.0	15.5	14.5	15.0	20.0	18.0	19.0
28	---	---	---	11.5	11.0	11.0	16.5	15.0	15.5	18.5	17.0	18.0
29	---	---	---	11.5	10.5	11.0	17.0	15.5	16.5	17.5	17.0	17.5
30	---	---	---	11.0	10.5	11.0	18.0	16.5	17.0	17.5	17.0	17.5
31	---	---	---	11.0	10.5	11.0	---	---	---	18.0	17.0	17.5
MONTH	4.0	2.0	3.0	11.5	3.0	8.0	18.0	9.5	12.0	22.5	17.0	19.5

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.5	18.0	18.0	25.5	25.0	25.0	27.5	27.0	27.5	26.0	25.5	25.5
2	19.0	18.5	19.0	25.5	25.0	25.0	28.0	27.5	27.5	26.0	25.5	25.5
3	19.5	19.0	19.0	26.0	25.0	25.5	28.0	27.5	27.5	26.0	25.5	26.0
4	20.0	19.0	19.5	25.0	24.5	25.0	28.0	27.5	27.5	26.0	25.5	26.0
5	21.0	19.5	20.0	24.5	24.0	24.5	28.0	27.5	28.0	26.5	26.0	26.0
6	21.5	20.5	21.0	24.5	24.0	24.5	28.0	28.0	28.0	26.0	25.5	26.0
7	22.0	21.0	21.5	25.0	24.0	24.5	28.0	27.5	28.0	26.0	25.5	26.0
8	22.5	21.5	22.0	25.0	24.0	24.5	28.0	27.5	28.0	26.0	25.5	26.0
9	22.5	22.0	22.5	25.5	24.5	25.0	---	---	---	26.0	25.0	25.5
10	23.0	22.0	23.0	25.5	24.5	25.0	28.0	28.0	28.0	25.0	25.0	25.0
11	23.0	22.5	23.0	25.5	24.5	25.0	28.0	27.0	27.5	25.0	24.0	24.5
12	23.5	22.0	23.0	26.0	25.0	25.5	27.0	25.5	26.5	24.5	24.0	24.0
13	23.5	22.5	23.0	27.0	25.5	26.0	25.5	25.5	25.5	24.5	23.5	24.0
14	24.0	22.5	23.5	27.0	26.0	26.5	25.5	25.0	25.5	24.5	23.5	24.0
15	24.0	23.0	23.5	27.5	26.0	26.5	25.0	24.5	24.5	24.0	23.0	23.5
16	24.0	23.5	23.5	28.0	26.5	27.0	24.5	24.0	24.0	23.5	22.5	23.0
17	24.0	23.5	23.5	28.0	27.0	27.5	24.0	23.5	24.0	23.5	22.5	23.0
18	24.5	23.5	24.0	28.0	27.5	27.5	24.0	23.5	23.5	23.0	22.5	23.0
19	24.5	23.5	24.0	27.0	26.5	26.5	24.0	23.5	23.5	23.0	22.5	23.0
20	24.5	23.5	24.0	27.0	26.0	26.5	24.0	23.5	24.0	22.5	22.0	22.0
21	24.5	24.0	24.5	27.0	26.5	26.5	24.0	23.5	24.0	22.5	22.0	22.0
22	24.5	24.0	24.5	27.0	26.5	26.5	24.0	23.5	24.0	22.0	21.0	21.5
23	24.5	24.0	24.5	27.0	26.5	27.0	24.5	24.0	24.0	21.5	20.5	21.0
24	24.5	24.0	24.0	---	---	---	24.5	24.0	24.0	21.0	20.5	20.5
25	24.0	23.5	24.0	---	---	---	24.5	24.0	24.5	20.5	20.0	20.5
26	24.5	23.5	24.0	---	---	---	24.5	24.0	24.5	20.5	19.5	20.0
27	24.5	24.0	24.5	27.5	27.0	27.0	25.0	24.0	24.5	20.0	19.5	20.0
28	25.0	24.0	24.5	27.5	27.0	27.0	25.0	24.5	25.0	20.0	19.5	20.0
29	25.0	24.0	24.5	27.0	27.0	27.0	25.0	25.0	25.0	20.0	19.5	20.0
30	25.5	24.5	25.0	27.0	26.5	27.0	25.5	25.0	25.0	20.0	19.5	19.5
31	---	---	---	27.5	27.0	27.0	25.5	25.0	25.5	---	---	---
MONTH	25.5	18.0	23.0	28.0	24.0	26.0	28.0	23.5	25.5	26.5	19.5	23.0

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	1.6	.4	.8	5.0	1.9	3.0	7.1	4.6	5.6	10.2	9.1	9.5
2	2.0	.2	.8	4.6	1.7	2.7	7.7	4.5	5.7	10.2	9.1	9.5
3	1.6	.3	.7	4.4	1.5	2.7	8.8	4.9	6.4	11.3	9.9	10.8
4	1.1	.0	.3	4.5	1.4	2.4	7.7	5.2	6.1	11.2	10.7	10.9
5	.9	.0	.3	4.6	1.3	2.4	8.4	5.6	6.6	---	---	---
6	.8	.0	.2	5.2	1.3	2.7	10.0	5.6	7.0	---	---	---
7	1.3	.0	.5	5.0	1.4	2.8	9.1	5.9	7.3	---	---	---
8	3.2	.4	1.3	5.0	1.4	2.9	8.5	5.6	7.0	---	---	---
9	3.3	1.1	1.9	4.4	1.1	2.6	9.1	5.6	7.4	9.8	9.3	9.4
10	3.9	1.1	2.2	4.5	1.1	2.7	11.3	7.9	10.0	---	---	---
11	3.6	1.0	1.9	3.8	.6	2.0	11.2	10.3	10.7	---	---	---
12	2.8	.6	1.3	4.2	.8	2.2	11.6	8.5	9.8	---	---	---
13	2.2	.5	1.0	4.4	1.3	2.5	9.7	8.4	9.0	---	---	---
14	1.4	.0	.6	4.2	1.4	2.5	9.9	8.8	9.3	---	---	---
15	1.9	.1	.9	3.9	1.6	2.7	---	---	---	---	---	---
16	1.8	.7	1.1	4.0	1.6	2.6	---	---	---	12.4	12.1	12.2
17	2.2	.6	1.2	4.4	1.5	2.3	---	---	---	12.4	11.8	12.0
18	---	---	---	4.0	1.5	2.4	---	---	---	12.1	11.6	11.8
19	---	---	---	4.8	3.4	4.1	---	---	---	12.0	11.4	11.6
20	---	---	---	---	---	---	10.6	9.0	9.5	11.5	11.0	11.2
21	---	---	---	---	---	---	10.0	8.8	9.2	11.1	10.3	10.7
22	---	---	---	5.3	2.2	3.2	10.2	8.8	9.3	11.2	11.1	11.1
23	---	---	---	4.8	1.8	3.1	10.3	8.5	9.2	11.1	10.7	10.9
24	---	---	---	5.1	2.2	3.5	10.3	8.6	9.4	11.6	10.7	11.3
25	5.1	2.0	3.0	6.6	3.4	4.7	10.6	8.8	9.5	12.1	11.3	11.7
26	5.3	1.8	3.2	7.0	4.3	5.5	11.0	9.9	10.5	11.7	11.3	11.5
27	6.1	1.5	3.3	7.4	4.5	5.7	10.7	10.1	10.4	11.8	11.4	11.6
28	5.8	1.1	2.6	7.3	4.6	5.5	10.7	10.1	10.4	11.8	11.6	11.7
29	4.1	1.1	2.5	7.2	4.7	5.9	10.7	9.9	10.2	11.7	11.5	11.6
30	4.5	1.7	3.0	7.2	4.6	5.6	10.5	9.5	9.9	11.6	11.3	11.5
31	4.9	2.1	3.0	---	---	---	10.4	9.3	9.7	11.5	11.2	11.3
MONTH	6.1	.0	1.6	7.4	.6	3.3	11.6	4.5	8.7	12.4	9.1	11.1

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1975

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.4	11.2	11.3	---	---	---	9.5	7.8	8.6	6.9	5.5	6.0
2	11.4	11.1	11.2	---	---	---	9.5	8.1	8.6	6.7	5.1	5.8
3	11.3	10.8	11.0	---	---	---	9.0	7.7	8.1	6.9	4.7	5.6
4	11.2	10.5	10.8	---	---	---	8.9	7.4	8.1	6.7	4.7	5.5
5	11.5	10.8	11.1	---	---	---	8.4	7.4	7.7	6.4	4.9	5.5
6	11.8	11.1	11.4	---	---	---	8.5	7.0	7.8	7.1	4.8	5.6
7	---	---	---	---	---	---	8.9	8.0	8.4	7.2	4.8	5.9
8	---	---	---	---	---	---	8.7	7.5	8.1	7.1	4.9	5.8
9	---	---	---	---	---	---	8.7	7.4	7.9	7.9	4.9	5.8
10	---	---	---	---	---	---	8.8	7.6	8.2	6.6	4.7	5.5
11	---	---	---	---	---	---	9.0	7.7	8.2	6.9	3.9	4.8
12	---	---	---	---	---	---	9.1	7.7	8.3	5.8	2.7	4.0
13	---	---	---	---	---	---	9.2	7.9	8.4	5.3	2.4	3.3
14	---	---	---	---	---	---	9.0	7.8	8.3	5.0	2.1	3.2
15	---	---	---	---	---	---	9.0	7.9	8.4	4.5	1.8	2.6
16	---	---	---	11.6	10.9	11.2	9.6	8.3	9.0	3.5	1.3	2.0
17	---	---	---	11.3	10.6	10.9	9.5	8.9	9.1	3.5	.9	1.9
18	---	---	---	10.9	10.3	10.6	9.4	8.6	8.9	2.9	.8	1.5
19	---	---	---	10.9	10.0	10.3	9.1	8.3	8.6	2.6	.5	1.3
20	---	---	---	10.7	9.8	10.1	8.9	7.7	8.3	4.2	.7	1.7
21	---	---	---	10.7	9.5	10.0	8.6	7.3	8.0	3.8	1.0	2.0
22	---	---	---	10.4	9.2	9.7	8.7	7.2	7.8	4.5	1.0	2.5
23	---	---	---	10.2	8.8	9.4	10.0	7.2	8.8	4.2	1.1	2.3
24	---	---	---	9.5	8.2	8.9	9.8	7.7	8.7	5.5	1.3	3.0
25	---	---	---	9.0	8.0	8.5	8.6	7.1	7.8	6.6	2.9	4.9
26	---	---	---	9.0	8.0	8.4	8.1	6.3	7.1	7.9	4.7	5.9
27	---	---	---	8.8	8.2	8.4	7.1	5.5	6.2	8.7	6.3	7.4
28	---	---	---	9.2	8.1	8.5	7.4	5.1	5.9	8.8	7.6	8.1
29	---	---	---	9.0	8.0	8.4	7.6	4.9	6.3	8.8	7.6	8.0
30	---	---	---	9.3	7.8	8.4	7.7	5.9	6.5	8.8	7.3	8.1
31	---	---	---	9.2	7.7	8.4	---	---	---	8.9	7.7	8.1
MONTH	11.8	10.5	11.1	11.6	7.7	9.4	10.0	4.9	8.0	8.9	.5	4.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.2	6.9	7.5	2.2	.5	1.0	2.0	.3	.8	3.5	.3	1.4
2	7.8	5.9	6.8	2.0	.5	1.1	1.1	.0	.4	3.9	.4	1.7
3	7.1	5.5	6.3	2.1	.5	1.1	.6	.0	.5	4.6	1.2	2.3
4	6.4	4.7	5.7	1.5	.4	.8	1.8	.0	.5	3.4	.7	1.8
5	6.3	4.3	5.0	2.5	.5	1.3	5.0	.1	1.3	1.5	.2	.6
6	5.7	3.6	4.7	2.5	1.4	1.8	3.6	.0	1.1	---	---	---
7	4.9	3.2	4.2	2.3	.5	1.3	2.6	.0	1.0	---	---	---
8	4.9	3.1	3.9	1.2	.3	.6	2.7	.1	1.0	---	---	---
9	4.5	2.5	3.4	1.2	.5	.8	---	---	---	---	---	---
10	5.2	2.2	3.4	1.1	.4	.7	1.8	.2	1.0	---	---	---
11	4.1	2.3	3.1	---	---	---	1.6	.0	.6	---	---	---
12	3.6	2.0	2.6	---	---	---	3.1	.6	1.8	---	---	---
13	3.7	1.8	2.5	---	---	---	4.5	2.3	3.1	---	---	---
14	3.6	1.5	2.3	---	---	---	6.5	1.7	3.3	---	---	---
15	3.3	1.3	2.0	---	---	---	5.5	1.2	2.7	---	---	---
16	2.8	.9	1.8	---	---	---	3.5	1.2	2.0	---	---	---
17	2.9	1.0	1.6	---	---	---	2.6	.7	1.4	---	---	---
18	2.0	.7	1.3	---	---	---	2.1	.3	1.0	---	---	---
19	2.2	.6	1.1	3.8	.8	1.7	1.4	.4	.8	---	---	---
20	2.1	.3	.9	2.6	.8	1.2	2.2	.3	1.0	---	---	---
21	1.8	.4	.9	2.5	.4	.7	1.3	.3	.6	---	---	---
22	1.4	.3	.7	3.2	.2	1.0	1.3	.2	.6	---	---	---
23	1.3	.2	.5	1.5	.1	.4	1.5	.3	.7	---	---	---
24	1.3	.2	.5	---	---	---	1.7	.2	.5	---	---	---
25	1.4	.4	.7	---	---	---	2.4	.2	.7	---	---	---
26	2.4	.3	.8	---	---	---	2.5	.3	1.2	---	---	---
27	2.3	.5	1.1	1.6	.3	.6	3.0	.4	1.6	4.2	2.6	3.2
28	2.7	.5	1.1	1.5	.2	.5	3.5	.6	1.6	4.1	2.2	2.9
29	2.1	.3	.8	1.8	.2	.5	3.1	.4	1.4	3.8	1.8	2.5
30	2.1	.1	.8	1.7	.3	.8	2.6	.3	1.1	3.6	1.8	2.4
31	---	---	---	2.4	.3	.7	3.2	.3	1.2	---	---	---
MONTH	8.2	.1	2.6	3.8	.1	.9	6.5	.0	1.2	4.6	.2	2.1

SCHUYLKILL RIVER BASIN

01468500 SCHUYLKILL RIVER AT LANDINGVILLE, PA

LOCATION.--Lat 40°37'45", long 76°07'30", Schuylkill County, Hydrologic Unit 02040203, on left bank 10 ft (3 m) upstream from highway bridge at Landingville, 0.1 mi (0.2 km) upstream from Mahannon Creek, and 5 mi (8.0 km) downstream from West Branch Schuylkill River.

DRAINAGE AREA.--133 mi² (344 km²).

PERIOD OF RECORD.--August 1947 to April 1953, October 1963 to September 1965, August 1973 to current year.

REVISED RECORDS.--WDR PA-75-1: 1973(P), 1974 (P).

GAGE.--Water-stage recorder. Datum of gage is 470.64 ft (143.451 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 27, 1947 nonrecording gage 10 ft (3 m) downstream at same datum.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years (Water years 1948-52, 1964-65, 1975-79), 303 ft³/s (8.581 m³/s), 30.94 in/yr (786 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 8,570 ft³/s (243 m³/s) Nov. 25, 1950, gage height, 13.29 ft (4.051 m); minimum, 19 ft³/s (0.54 m³/s) Oct. 30, 31, Nov. 4, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1972 reached a stage of 17.36 ft (5.291 m), discharge, 14,000 ft³/s (396 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,300 ft³/s (36.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 2	1500	1,800	51.0	7.37	2.246
Jan. 8	0700	1,570	44.5	6.90	2.103
Jan. 21	1830	1,890	53.5	7.55	2.301
Jan. 24	2315	*4,930	140	*12.41	3.783
Feb. 24	2145	1,820	51.5	7.32	2.231
Feb. 26	0515	2,770	78.4	9.08	2.768
Mar. 6	0615	2,780	78.7	9.15	2.789
May 25	2030	1,780	50.4	7.07	2.155
Sept. 6	0800	3,900	110	10.91	3.325

Minimum discharge, 71 ft³/s (2.01 m³/s) Nov. 12, minimum gage height, 3.07 ft (0.936 m) Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	115	149	400	497	786	307	302	571	193	140	136
2	92	114	152	1340	442	774	328	284	535	180	134	123
3	106	112	131	1340	403	778	346	307	500	168	131	221
4	114	110	293	957	377	806	390	346	476	185	123	142
5	125	94	304	774	343	1760	542	296	432	180	102	145
6	200	90	281	664	316	2400	497	267	429	159	114	2270
7	150	104	253	782	304	1660	459	267	384	147	118	996
8	120	104	367	1370	293	1240	413	259	353	134	129	664
9	110	102	709	1010	273	979	500	251	331	142	112	510
10	105	100	642	831	250	889	528	251	296	145	136	419
11	100	90	525	699	230	889	449	278	304	136	190	359
12	100	75	458	604	220	738	439	256	278	136	281	316
13	100	84	412	567	200	660	409	293	259	134	193	287
14	454	86	370	532	190	611	517	304	245	140	154	381
15	221	86	335	452	200	539	442	267	234	129	140	346
16	178	94	308	406	190	479	429	253	218	129	131	259
17	175	106	285	361	180	442	413	240	200	142	123	232
18	152	276	266	346	170	409	387	259	205	129	166	216
19	149	120	255	307	160	384	359	307	198	154	161	200
20	140	108	245	302	160	356	337	270	185	125	131	188
21	116	114	293	1250	170	337	322	253	180	129	129	517
22	120	114	249	979	180	313	290	251	256	108	118	902
23	115	120	241	691	195	299	287	374	276	114	114	604
24	110	140	236	2170	1080	393	278	996	183	147	183	493
25	110	131	560	2850	1080	422	264	1370	183	129	256	432
26	120	106	404	1490	1720	384	262	1480	180	140	168	384
27	150	110	359	1130	1040	362	429	1200	173	129	168	340
28	140	138	325	919	676	346	377	1040	190	112	166	319
29	130	131	297	758	---	346	310	868	234	310	159	307
30	120	159	281	641	---	325	307	738	322	221	156	273
31	120	---	272	567	---	322	---	664	---	156	149	---
TOTAL	4324	3433	10257	27509	11739	21428	11617	14791	8810	4682	4675	12981
MEAN	139	114	331	887	419	691	387	477	294	151	151	433
MAX	454	276	709	2850	1720	2400	542	1480	571	310	281	2270
MIN	82	75	131	302	160	299	262	240	173	108	102	123
CFSM	1.05	.86	2.49	6.67	3.15	5.20	2.91	3.59	2.21	1.14	1.14	3.26
IN.	1.21	.96	2.87	7.69	3.28	5.99	3.25	4.14	2.46	1.31	1.31	3.63

CAL YR 1978 TOTAL 124255 MEAN 340 MAX 3030 MIN 75 CFSM 2.56 IN 34.75
WTR YR 1979 TOTAL 136246 MEAN 373 MAX 2850 MIN 75 CFSM 2.81 IN 38.11

01468500 SCHUYLKILL RIVER AT LANDINGVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OR RECORD.--December 1979 to current year.

WATER-QUALITY DATA, DECEMBER 1979

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	NITRO-GEN,TOT IN BOT-TOM MA-TERIAL (MG/KG AS N)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
DEC									
18...	1200	390	6.1	5.0	3900	480	1	<10	10

DATE	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	ZINC, REC V. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
DEC									
18...	30	30	.00	100	.2	68	53	.0	0

DATE	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
DEC									
18...	.0	.0	.0	.0	.0	.0	.0	.0	0

01469500 LITTLE SCHUYLKILL RIVER AT TAMAQUA, PA

LOCATION.--Lat 40°48'25", long 75°58'20", Schuylkill County, Hydrologic Unit 02040203, on left bank at pumping plant of Panther Valley Water Co., 0.6 mi (1.0 km) upstream from Tamaqua, and 0.8 mi (1.3 km) upstream from Panther Creek.

DRAINAGE AREA.--42.9 mi² (111.1 km²).

PERIOD OF RECORD.--October 1919 to current year. Monthly discharge only for some periods, published in WSP 1302. June 1916 to September 1919, gage heights and discharge measurements only, in reports of Water Supply Commission of Pennsylvania.

REVISED RECORDS.--WSP 756: Drainage area. WSP 971: 1942. WSP 1302: 1922, 1926-30. WSP 1432: 1920-21, 1933.

GAGE.--Water-stage recorder and broad-crested weir. Datum of gage is 817.48 ft (249.168 m) National Geodetic Vertical Datum of 1929. Prior to June 21, 1929, nonrecording gage at site 3,600 ft (1,100 m) downstream at datum 28.64 ft (8.729 m) lower.

REMARKS.--Records good except those for periods of no gage-height record, Jan. 17 to Feb. 5, Apr. 7 to May 16 and Aug. 22 to Sept. 6, which are fair. Flow regulated by Still Creek Reservoir (station 01469200) 6.5 mi (10.5 km) upstream. Figures of daily discharge do not include water diverted from reservoir. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--60 years, 93.6 ft³/s (2.651 m³/s), 29.62 in/yr (752 mm/yr), adjusted for diversion and, since February 1933, for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,790 ft³/s (221 m³/s) Aug. 18, 1955, gage height, 11.10 ft (3.383 m), from rating curve extended above 3,200 ft³/s (91 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 1.8 ft³/s (0.051 m³/s) Dec. 18, 1931, gage height, 1.21 ft (0.369 m); minimum daily, 2.9 ft³/s (0.082 m³/s) Sept. 2, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,890 ft³/s (53.5 m³/s) Jan. 25, gage height, 5.74 ft (1.750 m); minimum discharge, 16 ft³/s (0.45 m³/s) Aug. 9, gage height, 2.03 ft (0.619 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	38	51	120	150	246	83	80	131	60	24	19
2	21	37	49	495	130	246	91	75	117	50	23	18
3	20	36	50	505	115	236	96	80	111	48	22	35
4	22	36	76	325	105	243	100	95	105	45	20	25
5	25	36	88	236	95	595	133	90	92	43	19	20
6	49	35	87	196	90	1040	115	80	88	37	19	800
7	32	34	85	202	81	724	105	80	79	35	18	400
8	26	33	115	375	77	489	100	80	71	33	18	246
9	25	32	229	270	60	310	120	75	59	31	17	178
10	25	31	227	220	60	260	125	75	56	30	18	129
11	22	31	191	181	55	277	110	90	58	29	26	106
12	21	31	140	156	52	223	100	80	52	28	47	88
13	22	30	137	143	50	196	95	90	47	26	38	76
14	96	30	118	130	50	181	120	95	46	25	27	95
15	95	29	102	114	55	162	110	90	44	26	24	100
16	80	31	90	95	50	140	100	85	42	34	21	70
17	77	34	88	90	48	128	100	83	40	48	20	60
18	69	90	75	85	45	118	95	83	39	32	24	56
19	63	64	67	80	42	111	90	91	37	27	28	54
20	59	54	64	80	40	102	85	96	35	24	23	51
21	54	52	73	400	42	94	80	89	33	23	21	104
22	50	51	66	250	45	87	75	81	33	23	20	273
23	47	54	58	200	56	81	75	109	38	20	19	216
24	44	63	57	700	220	98	70	295	33	32	25	169
25	42	56	104	1050	340	116	70	450	31	26	40	141
26	43	51	86	600	548	107	70	372	29	24	30	120
27	58	52	77	400	336	96	100	294	28	24	25	102
28	48	53	71	300	253	89	90	248	59	22	23	91
29	43	51	67	250	---	91	85	205	118	31	22	89
30	40	52	64	200	---	89	80	168	88	37	21	77
31	38	---	64	170	---	87	---	158	---	28	20	---
TOTAL	1377	1307	2932	8618	3292	7062	2868	4162	1839	1001	742	4008
MEAN	44.4	43.6	94.6	278	118	228	95.6	134	61.3	32.3	23.9	134
MAX	96	90	229	1050	548	1040	133	450	131	60	47	800
MIN	20	29	49	80	40	81	70	75	28	22	17	18
/	9.1	8.1	7.5	7.1	7.2	7.5	10.6	9.5	9.5	8.7	6.5	8.9
MEAN≠	51.2	42.4	107	309	124	235	106	144	66.0	38.7	25.2	148
CFSM≠	1.19	0.99	2.49	7.19	2.90	5.47	2.47	3.37	1.60	0.90	0.59	3.46
IN≠	1.38	1.10	2.88	8.29	3.02	6.31	2.76	3.88	1.78	1.04	0.68	3.86

CAL YR 1978 TOTAL 36509 MEAN 100 MAX 1200 MIN 18 MEAN≠ 101 CFSM≠ 2.35 IN≠ 31.94
WTR YR 1979 TOTAL 39208 MEAN 107 MAX 1050 MIN 17 MEAN≠ 117 CFSM≠ 2.72 IN≠ 36.98

/ Diversion from Still Creek Reservoir, equivalent in cubic feet per second, furnished by Panther Valley Water Company.

≠ Adjusted for diversion and change in contents in Still Creek Reservoir.

01470500 SCHUYLKILL RIVER AT BERNE, PA

LOCATION.--Lat 40°31'21", long 75°59'55", Berks County, Hydrologic Unit 02040203, on right bank 50 ft (15 m) upstream from highway bridge at Berne, 0.5 mi (0.8 km) upstream from Mill Creek, and 6.5 mi (10.5 km) downstream from Little Schuylkill River. Water-quality sampling site at bridge 50 ft (15 m) downstream.

DRAINAGE AREA.--355 mi² (919 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1947 to current year. Monthly discharge only for August 1947, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 310.65 ft (94.686 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Some regulation at low flow by mine pumpage and by Still Creek Reservoir (station 01469200) about 25 mi (40 km) upstream from station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--32 years, 722 ft³/s (20.45 m³/s), 27.60 in/yr (701 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,800 ft³/s (1,210 m³/s) June 22, 1972, gage height, 19.0 ft (5.79 m), from floodmark in gage shelter, from rating curve extended above 17,000 ft³/s (481 m³/s); minimum, 31 ft³/s (0.88 m³/s) Sept. 2, 1949.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1942, reached a stage of 15.0 ft (4.57 m), from floodmarks, discharge, 26,900 ft³/s (762 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,400 ft³/s (125 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 2	2115	5,520	156	8.51	2.594	Feb. 25	0145	5,980	169	8.71	2.655
Jan. 8	1015	5,220	148	8.36	2.548	Feb. 26	0800	8,720	247	9.81	2.990
Jan. 22	0045	6,180	175	8.79	2.679	Mar. 6	1045	7,500	212	9.32	2.841
Jan. 25	0430	*21,700	615	*13.77	4.197	Sept. 6	1500	9,530	270	10.11	3.082

Minimum discharge, 182 ft³/s (5.15 m³/s) Aug. 10, gage height, 4.84 ft. (1.475 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	232	305	434	881	1150	2070	696	822	1070	427	276	220
2	224	293	418	3140	1020	1960	696	727	969	360	257	212
3	234	275	407	4310	906	1860	769	699	939	333	249	276
4	251	288	599	2750	846	1840	805	838	936	330	244	257
5	290	292	771	2010	760	3590	1430	698	794	362	237	220
6	470	275	722	1640	846	6550	1360	640	763	306	219	4810
7	348	272	663	1590	896	4840	1190	597	689	288	214	3140
8	295	269	671	4510	750	3410	1050	565	641	278	220	1670
9	274	268	1950	3130	750	2500	1130	542	596	263	209	1170
10	263	262	2120	2220	616	2080	1440	519	558	266	197	910
11	254	265	1580	1730	651	2200	1200	635	570	267	259	743
12	252	254	1280	1400	589	1900	1130	559	526	248	461	632
13	249	244	1090	1260	525	1640	1050	615	467	252	418	557
14	882	250	955	1230	490	1510	1330	663	440	247	280	552
15	653	240	831	1060	580	1310	1230	576	420	267	256	820
16	485	251	736	898	480	1130	1100	541	409	281	231	533
17	495	256	683	815	450	1030	1070	493	389	284	216	461
18	443	571	611	764	420	946	972	489	374	260	225	422
19	424	406	559	608	400	865	881	637	369	254	322	401
20	404	332	526	956	420	797	812	646	340	226	236	369
21	385	323	648	2680	450	741	761	562	329	226	273	508
22	366	319	582	3980	500	695	704	547	336	231	215	2440
23	347	322	517	2060	625	651	661	725	584	215	204	1630
24	325	403	498	3410	2970	750	633	2100	369	300	232	1210
25	319	361	1450	14000	3930	926	604	3190	330	242	306	989
26	326	329	1210	5070	6110	886	585	3150	310	236	250	847
27	429	327	1010	3360	3150	807	947	2500	298	257	250	735
28	376	353	853	2550	2320	760	1280	2110	293	230	237	652
29	351	367	758	1940	---	769	1000	1740	567	491	240	651
30	318	396	669	1590	---	723	885	1410	562	601	239	578
31	307	---	639	1350	---	690	---	1260	---	328	228	---
TOTAL	11271	9368	26440	78972	33480	5250-	29401	31795	16193	9112	7850	28615
MEAN	364	312	853	2547	1196	1694	980	1026	540	294	253	954
MAX	882	571	2120	14000	6110	6550	1440	3190	1070	601	461	4810
MIN	224	240	407	608	400	651	585	489	293	215	197	212
CFSM	1.03	.88	2.40	7.18	3.37	4.77	2.76	2.89	1.52	.83	.71	2.69
IN.	1.18	.98	2.77	8.28	3.51	5.50	3.08	3.33	1.70	.95	.82	3.00

CAL YR 1978 TOTAL 313546 MEAN 859 MAX 9350 MIN 204 CFSM 2.42 IN 32.86
WTR YR 1979 TOTAL 335003 MEAN 918 MAX 14000 MIN 197 CFSM 2.59 IN 35.10

01470500 SCHUYLKILL RIVER AT BERNE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1947 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: October 1963 to September 1973.
WATER TEMPERATURES: February 1948 to September 1953, December 1957 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1947 to current year.

REMARKS.--Unpublished records of specific conductance and pH of sediment samples available in the district office at Harrisburg.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,410 micromhos Oct. 25, 26, 28, 1964; minimum daily, 107 micromhos Jan. 25, 1979.
WATER TEMPERATURES: Maximum daily, 33.0°C July 3, 1966; minimum, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 8,030 mg/L Nov. 4, 1947; minimum daily, 0 mg/L on many days during 1952 and 1968.
SEDIMENT LOADS: Maximum daily, 90,180 tons (81,800 tonnes) Nov. 12, 1947; minimum daily, 0 ton (0 tonne) on many days during 1952 and 1968.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 715 micromhos Oct. 4; minimum daily, 107 micromhos Jan. 25.
WATER TEMPERATURES: Maximum daily, 32.0°C Aug. 5; minimum 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 213 mg/L Feb. 24, 26; minimum daily, 1 mg/L on many days.
SEDIMENT LOADS: Maximum daily, 7,600 tons (6,890 tonnes) Jan. 25; minimum daily, 0 ton (0 tonne) July 20, 21.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY TOTAL HEATED (MG/L AS H)	ACIDITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	NITROGEN,TOT IN BOTTOM MATERIAL (MG/KG AS N)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
OCT 12...	1045	257	690	7.1	14.0	.0	.0	280	20	--	--	--
DEC 18...	1440	--	320	6.2	6.0	--	--	--	--	3700	170	1
AUG 12...	2020	574	--	--	17.0	--	--	--	--	--	--	--
SEP 06...	0820	5620	--	6.2	--	--	--	--	--	--	--	--
06...	2005	5660	147	6.4	--	--	--	--	--	--	--	--
07...	1235	2700	169	6.4	--	--	--	--	--	--	--	--

DATE	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)
OCT 12...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 18...	--	<10	10	--	20	--	180	.02	--	--	100	.2
AUG 12...	0	--	--	8	--	6	--	--	--	50	--	--
SEP 06...	2	--	--	28	--	59	--	--	71	190	--	--
06...	1	--	--	18	--	14	--	--	26	60	--	--
07...	2	--	--	9	--	8	--	--	17	80	--	--

DATE	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)
OCT 12...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 18...	62	--	--	19	--	--	.0	--	4	--	2.9	--
AUG 12...	--	--	.0	--	--	.00	--	.0	--	.00	--	.00
SEP 06...	--	.00	.0	--	.00	.00	--	.0	--	.00	--	.00
06...	--	.00	.1	--	.00	.00	--	.0	--	.00	--	.00
07...	--	.00	.0	--	.00	.00	--	.0	--	.00	--	.00

01470500 SCHUYLKILL RIVER AT BERNE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	DI-ELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)
OCT												
12...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
18...	.0	--	1.1	--	--	.0	--	--	.0	--	.0	--
AUG												
12...	--	.00	--	.00	.00	--	--	.00	--	.00	--	.00
SEP												
06...	--	.00	--	--	.00	--	.00	.00	--	.00	--	.00
06...	--	.00	--	--	.00	--	.00	.00	--	.00	--	.00
07...	--	.00	--	--	.00	--	.00	.00	--	.00	--	.00

DATE	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOXA-PHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT												
12...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
18...	.0	--	.0	--	--	--	--	--	--	0	--	--
AUG												
12...	--	.00	--	.00	--	.00	.00	.00	0	--	16	25
SEP												
06...	--	.00	--	--	.00	--	.00	--	0	--	117	1780
06...	--	.00	--	--	.00	--	.00	--	0	--	275	4200
07...	--	.00	--	--	.00	--	.00	--	0	--	29	211

01470500 SCHUYLKILL RIVER AT BERNE, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	684	586	444	297	269	---	353	277	243	448	446	578
2	680	572	446	266	299	---	346	269	249	442	442	586
3	701	567	467	149	337	---	357	293	282	445	455	603
4	715	550	458	149	385	---	341	299	302	447	480	631
5	713	469	420	188	357	---	293	308	297	460	506	582
6	694	588	338	221	377	---	251	312	307	457	561	172
7	607	626	335	234	389	---	256	339	331	487	569	181
8	577	618	335	193	400	---	269	347	342	477	571	217
9	642	596	329	159	372	---	278	336	364	491	566	240
10	665	582	210	187	---	---	262	354	383	498	574	278
11	633	578	192	221	481	---	242	365	398	504	575	291
12	653	594	193	248	454	---	258	349	391	508	562	314
13	661	648	211	278	478	---	281	358	372	501	551	334
14	612	686	241	285	---	---	273	384	368	574	540	346
15	495	671	264	346	---	---	265	373	385	546	547	350
16	431	644	272	350	---	---	234	327	419	564	525	334
17	401	643	290	353	---	---	238	335	453	568	507	329
18	419	606	298	356	---	---	252	356	455	542	499	337
19	414	561	329	371	---	---	285	362	463	490	507	354
20	409	528	310	389	---	316	306	386	464	513	513	372
21	---	508	329	302	---	312	329	376	464	550	499	384
22	458	516	353	170	---	316	343	360	471	542	528	261
23	431	520	371	191	---	333	359	336	465	567	533	201
24	461	488	392	245	---	332	357	265	503	595	546	218
25	484	465	326	107	---	361	353	189	496	539	565	231
26	442	462	303	148	---	338	382	179	497	508	565	250
27	427	465	282	181	---	321	382	187	493	547	556	284
28	415	470	282	197	---	317	296	197	487	548	539	310
29	439	495	253	222	---	334	270	213	501	451	522	320
30	563	431	252	231	---	348	277	208	405	507	528	333
31	608	---	338	252	---	352	---	234	---	508	546	---
MEAN	550	558	316	241	377	332	300	306	402	510	530	341

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	10.0	5.0	5.0	3.0	6.0	14.0	15.0	19.0	25.0	30.0	28.0
2	16.0	10.0	5.0	8.0	2.0	7.0	11.0	15.0	18.0	23.0	27.0	27.0
3	15.0	10.0	5.0	4.0	3.0	6.0	---	15.0	18.0	25.0	28.0	28.0
4	15.0	10.0	5.0	3.0	4.0	8.0	10.0	15.0	18.0	20.0	30.0	29.0
5	15.0	10.0	6.0	2.0	1.0	8.0	8.0	15.0	18.0	20.0	32.0	27.0
6	16.0	10.0	5.0	4.0	1.0	---	9.0	15.0	20.0	24.0	30.0	20.0
7	15.0	10.0	5.0	4.0	1.0	6.0	---	18.0	19.0	25.0	29.0	24.0
8	15.0	12.0	7.0	4.0	3.0	6.0	7.0	20.0	22.0	25.0	30.0	20.0
9	15.0	9.0	5.0	4.0	.0	6.0	6.0	20.0	22.0	24.0	30.0	20.0
10	14.0	10.0	5.0	3.0	---	8.0	7.0	23.0	21.0	23.0	26.0	19.0
11	13.0	10.0	5.0	4.0	.0	7.0	10.0	23.0	20.0	27.0	24.0	20.0
12	15.0	10.0	5.0	3.0	.0	4.0	11.0	21.0	19.0	24.0	24.0	20.0
13	15.0	8.0	5.0	4.0	1.0	5.0	11.0	20.0	20.0	30.0	25.0	20.0
14	16.0	10.0	5.0	5.0	1.0	7.0	9.0	18.0	20.0	29.0	23.0	21.0
15	13.0	10.0	5.0	4.0	1.0	---	10.0	18.0	20.0	29.0	22.0	20.0
16	12.0	10.0	5.0	3.0	1.0	5.0	10.0	19.0	25.0	30.0	24.0	21.0
17	13.0	8.0	5.0	2.0	.0	8.0	10.0	18.0	25.0	30.0	24.0	20.0
18	11.0	11.0	---	2.0	---	10.0	10.0	18.0	24.0	28.0	20.0	22.0
19	11.0	10.0	4.0	2.0	---	9.0	10.0	17.0	23.0	29.0	23.0	22.0
20	13.0	10.0	2.0	2.0	---	10.0	12.0	17.0	25.0	26.0	25.0	19.0
21	13.0	7.0	4.0	4.0	---	10.0	14.0	18.0	25.0	24.0	22.0	17.0
22	13.0	7.0	4.0	5.0	---	11.0	14.0	18.0	21.0	26.0	27.0	18.0
23	13.0	8.0	4.0	5.0	2.0	12.0	15.0	18.0	23.0	26.0	25.0	17.0
24	11.0	9.0	3.0	5.0	---	12.0	15.0	17.0	21.0	---	25.0	17.0
25	10.0	8.0	3.0	4.0	4.0	11.0	15.0	17.0	23.0	29.0	27.0	17.0
26	11.0	5.0	3.0	5.0	4.0	9.0	16.0	15.0	24.0	26.0	28.0	19.0
27	12.0	2.0	2.0	6.0	4.0	8.0	15.0	15.0	25.0	26.0	29.0	18.0
28	11.0	3.0	3.0	5.0	6.0	7.0	15.0	15.0	24.0	26.0	29.0	17.0
29	14.0	2.0	1.0	5.0	---	8.0	17.0	16.0	20.0	23.0	26.0	18.0
30	14.0	4.0	3.0	5.0	---	10.0	14.0	16.0	20.0	24.0	28.0	18.0
31	11.0	---	3.0	4.0	---	14.0	---	16.0	---	24.0	25.0	---
MEAN	13.5	8.5	4.0	4.0	2.0	8.0	11.5	17.5	21.5	25.5	26.5	21.0

01470500 SCHUYLKILL RIVER AT BERNE, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	232	5	3.1	305	1	.82	434	9	11
2	224	5	3.0	293	1	.79	418	6	6.8
3	234	6	3.8	275	1	.74	407	9	9.9
4	251	6	4.1	288	1	.78	599	22	36
5	280	6	4.5	292	1	.79	771	20	42
6	478	22	32	275	1	.74	722	13	25
7	348	9	8.5	272	3	2.2	663	12	21
8	295	7	5.6	269	7	5.1	671	16	29
9	274	6	4.4	268	6	4.3	1950	70	369
10	263	5	3.6	262	5	3.5	2120	38	218
11	254	5	3.4	265	4	2.9	1580	19	81
12	252	3	2.0	254	4	2.7	1260	14	48
13	249	2	1.3	244	5	3.3	1090	13	38
14	882	26	70	250	5	3.4	955	13	34
15	653	14	25	240	3	1.9	831	13	29
16	485	7	9.2	251	4	2.7	736	13	26
17	495	3	4.0	256	4	2.8	683	13	24
18	443	2	2.4	571	29	53	611	13	21
19	424	2	2.3	406	9	9.9	559	12	18
20	404	1	1.1	332	6	5.4	526	10	14
21	385	1	1.0	323	4	3.5	648	13	23
22	366	1	.99	319	3	2.6	582	12	19
23	347	2	1.9	322	4	3.5	517	10	14
24	325	2	1.8	403	6	6.5	498	10	13
25	319	2	1.7	361	3	2.9	1450	32	125
26	326	2	1.8	329	2	1.8	1210	19	62
27	429	4	4.6	327	2	1.8	1010	14	38
28	378	2	2.0	353	2	1.9	853	9	21
29	351	1	.95	367	5	5.0	758	8	16
30	318	1	.86	396	6	6.4	669	12	22
31	307	1	.83	---	---	---	639	10	17
TOTAL	11271	---	211.73	9368	---	143.66	26440	---	1470.7

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	881	12	29	1150	6	19	2070	16	89
2	3140	89	1090	1020	7	19	1960	15	79
3	4310	78	908	906	8	20	1860	11	55
4	2750	17	126	846	7	16	1840	10	50
5	2010	10	54	760	7	14	3590	48	465
6	1640	9	40	846	6	14	6550	173	3060
7	1590	13	56	896	6	15	4840	39	510
8	4510	56	686	750	9	18	3410	17	157
9	3130	14	118	750	6	12	2500	13	88
10	2220	9	54	616	5	8.3	2060	13	73
11	1730	7	33	651	4	7.0	2280	15	92
12	1400	5	19	549	4	5.9	1900	12	62
13	1260	5	17	525	5	7.1	1640	9	40
14	1230	4	13	490	6	7.9	1510	9	37
15	1060	5	14	500	6	8.1	1310	9	32
16	898	4	9.7	480	5	6.5	1130	8	24
17	815	6	13	450	5	6.1	1030	7	19
18	764	6	12	420	4	4.5	946	6	15
19	688	4	7.4	400	3	3.2	865	7	16
20	956	8	21	420	2	2.3	797	7	15
21	2680	98	1050	450	6	7.3	741	6	12
22	3980	56	602	500	8	11	695	4	7.5
23	2060	11	61	625	10	17	651	5	8.8
24	3410	46	1090	2970	213	1710	750	9	18
25	14000	175	7600	3930	170	2050	926	8	20
26	5070	37	506	6110	213	2030	886	10	24
27	3360	17	154	3150	30	5000	807	8	17
28	2550	15	103	2320	17	106	760	6	12
29	1940	12	63	---	---	---	769	5	10
30	1590	9	39	---	---	---	723	5	9.8
31	1350	6	22	---	---	---	690	5	9.3
TOTAL	78972	---	14610.1	33480	---	11145.2	52506	---	5126.4

SCHUYLKILL RIVER BASIN

01470500 SCHUYLKILL RIVER AT BERNE, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	696	5	9.4	822	7	16	1070	3	8.7
2	696	7	13	727	6	12	969	3	7.8
3	769	8	17	699	6	11	939	3	7.6
4	805	9	20	838	10	23	936	3	7.6
5	1430	26	100	698	6	11	794	2	4.3
6	1360	17	62	640	6	10	763	2	4.1
7	1190	12	39	597	12	19	689	2	3.7
8	1050	8	23	565	9	14	641	2	3.5
9	1130	11	34	542	8	12	596	2	3.2
10	1440	23	89	519	10	14	558	1	1.5
11	1200	9	29	635	13	22	570	3	4.6
12	1130	8	24	559	17	26	526	4	5.7
13	1050	7	20	615	19	32	467	3	3.8
14	1330	15	54	663	15	27	440	3	3.6
15	1230	8	27	576	13	20	420	3	3.4
16	1140	6	18	541	13	19	409	6	6.6
17	1070	5	14	493	13	17	389	5	5.3
18	972	6	16	489	17	22	374	5	5.0
19	881	7	17	637	16	28	369	6	6.0
20	812	7	15	646	15	26	340	5	4.6
21	761	5	10	562	14	21	329	6	5.3
22	704	5	9.5	547	13	19	336	9	8.2
23	661	4	7.1	725	27	53	544	30	44
24	633	5	8.5	2100	55	312	369	14	14
25	604	5	8.2	3190	43	370	330	11	9.8
26	585	5	7.9	3150	34	289	310	7	5.9
27	947	26	66	2500	20	135	294	8	6.4
28	1240	25	84	2110	16	91	293	7	5.5
29	1000	11	30	1740	12	56	567	20	31
30	865	7	17	1410	6	23	562	16	24
31	---	---	---	1260	4	14	---	---	---
TOTAL	29401	---	888.6	31795	---	1764	16193	---	254.7

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	427	12	14	276	4	3.0	220	4	2.4
2	360	10	9.7	257	3	2.1	212	4	2.3
3	333	8	7.2	249	3	2.0	276	11	8.2
4	330	7	6.2	244	1	.66	257	5	3.5
5	362	7	6.8	237	1	.64	220	5	3.0
6	306	5	4.1	219	3	1.8	4810	190	3240
7	288	4	3.1	214	2	1.2	3140	38	322
8	278	2	1.5	220	3	1.8	1670	14	63
9	263	1	.71	209	3	1.7	1170	10	32
10	266	2	1.4	197	2	1.1	910	9	22
11	267	2	1.4	259	5	3.5	743	9	18
12	240	2	1.3	461	12	15	632	8	14
13	252	2	1.4	418	8	9.0	557	8	12
14	247	1	.67	280	4	3.0	552	9	13
15	267	2	1.4	256	3	2.1	820	20	44
16	241	3	2.0	231	1	.62	533	11	16
17	284	3	2.3	216	2	1.2	461	6	7.5
18	260	2	1.4	225	3	1.8	422	7	8.0
19	254	2	1.4	322	7	6.1	401	5	5.4
20	226	1	.61	236	5	3.2	369	5	5.0
21	226	1	.61	223	5	3.0	508	11	15
22	231	1	.62	215	5	2.9	2440	55	362
23	215	2	1.2	204	5	2.8	1630	16	70
24	300	6	4.9	232	5	3.1	1210	12	39
25	242	3	2.0	306	15	12	989	6	16
26	236	2	1.3	250	5	3.4	847	6	14
27	257	2	1.4	250	4	2.7	735	7	14
28	230	2	1.2	237	4	2.6	652	7	12
29	491	45	60	240	5	3.2	651	5	8.8
30	601	21	34	239	5	3.2	578	4	6.2
31	328	5	4.4	228	4	2.5	---	---	---
TOTAL	9112	---	180.22	7850	---	102.92	28615	---	4398.3
YEAR	335003		40296.53						

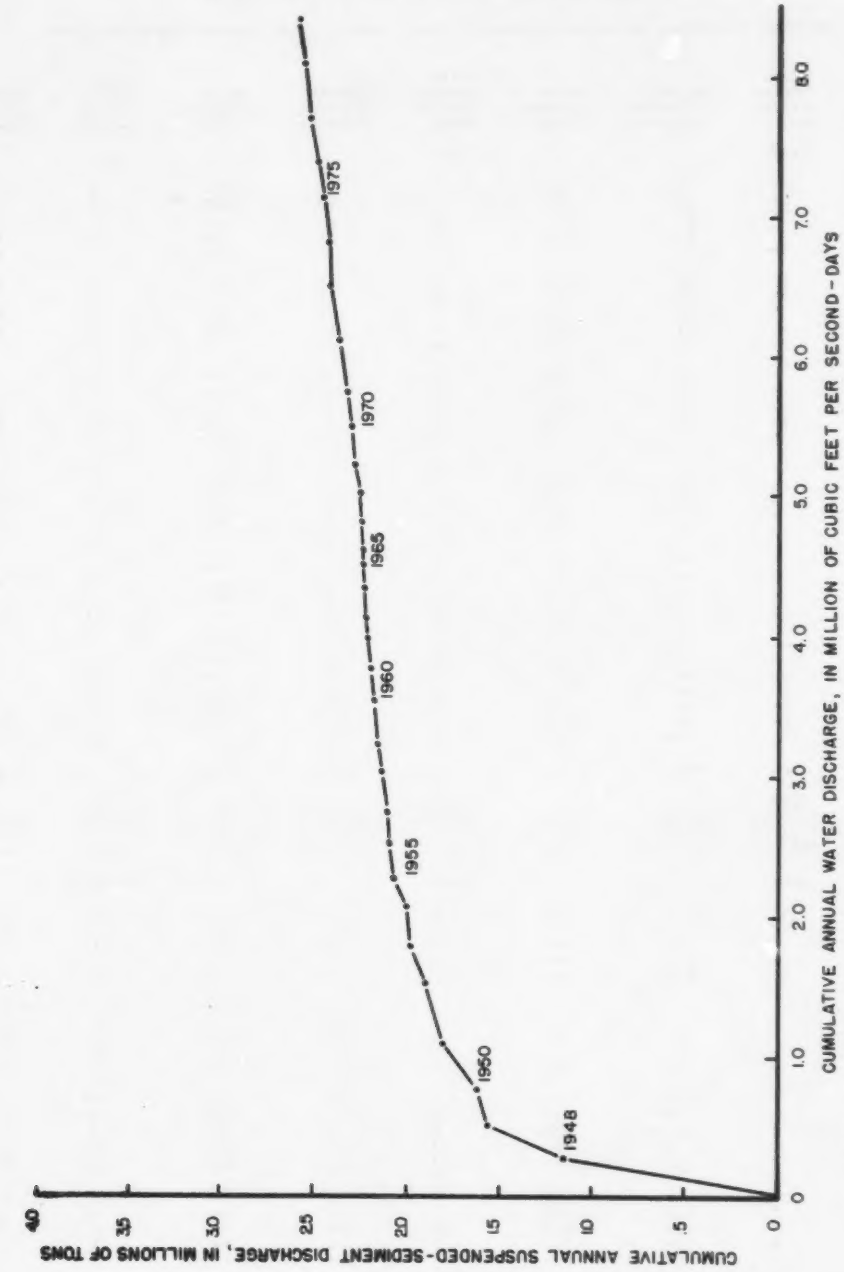

FIGURE 10--Double mass accumulation of annual suspended-sediment discharge versus annual water discharge Schuylkill River at Berne, Pa.

Table 1.--Suspended-sediment concentration-duration table, Schuylkill River at Berne, PA

Period	Mean daily concentration, in milligrams per liter that was equaled or exceeded for indicated percentage of time													
	1	2	5	10	20	30	40	50	60	70	80	90	95	99
1979	185	88	41	21	14	10	8	7	6	5	4	2	1	1
1960-79	93	58	27	16	10	7	5	4	4	3	2	2	1	1

01470720 MAIDEN CREEK TRIBUTARY AT LENHARTSVILLE, PA

LOCATION.--Lat 40°34'23", long 75°52'34", Berks County, Hydrologic Unit 02040203, on left bank 60 ft (18 m) downstream from culvert on Interstate Highway 78, 0.5 mi (0.8 km) upstream from mouth, and 0.5 mi (0.8 km) east of Lenhartsville.

DRAINAGE AREA.--7.46 mi² (19.32 km²).

PERIOD OF RECORD.--Annual maximum and occasional discharge measurements, water years 1962-65. October 1965 to current year.

REVISED RECORDS.--WDR PA-72: 1967(M), 1969-71(M).

GAGE.--Water-stage recorder and masonry control. Datum of gage is 368.78 ft (112.404 m) National Geodetic Vertical Datum of 1929. July 12, 1961 to Sept. 15, 1965 crest-stage gage at site 60 ft (18 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--14 years, 12.8 ft³/s (0.362 m³/s), 23.29 in/yr (592 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,530 ft³/s (43.3 m³/s) June 22, 1972, gage height, 6.46 ft (1.969 m), from peak-stage indicator, from rating curve extended above 280 ft³/s (7.93 m³/s) on basis of computation of peak flow through culvert; maximum gage height, 6.7 ft (2.04 m) Feb. 8, 1965, from floodmark; no flow on many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 130 ft³/s (3.68 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 8	0300	135	3.82	3.45	1.052	Feb. 26	0400	904	25.6	5.45	1.661
Jan. 21	1500	390	11.0	4.32	1.317	July 29	1530	209	5.92	3.71	1.131
Jan. 24	1830	*1,260	35.7	*6.06	1.847	Sept. 6	0500	182	5.15	3.61	1.100
Feb. 24	0500	402	11.4	4.35	1.326						

Minimum discharge, 1.3 ft³/s (0.037 m³/s) July 12, 13, 14, gage height, 2.26 ft (0.689 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	2.1	11	35	8.2	33	5.5	11	13	3.0	29	1.7
2	2.8	1.9	8.2	92	7.0	28	5.9	9.4	12	3.0	25	1.7
3	2.8	2.1	7.2	107	6.0	24	8.2	8.8	13	2.3	19	2.1
4	4.1	2.1	14	65	5.2	22	12	11	11	3.3	14	1.7
5	3.8	2.1	12	41	5.9	36	28	7.7	8.2	3.0	11	3.3
6	14	1.9	11	31	4.1	49	24	5.9	7.7	2.3	10	98
7	5.2	1.9	10	42	5.5	43	22	5.2	6.7	1.9	7.7	53
8	4.1	1.9	12	115	5.2	35	20	4.5	5.9	1.7	6.3	35
9	3.8	1.7	44	79	3.3	28	27	4.1	6.7	1.7	5.2	24
10	3.3	1.7	44	49	2.5	28	36	4.1	5.5	1.7	4.8	17
11	3.3	1.7	36	33	2.2	33	30	3.8	10	1.7	5.9	13
12	3.0	1.7	27	25	1.8	30	29	3.8	5.9	1.6	17	9.4
13	2.8	1.7	22	22	1.9	27	27	6.3	4.8	1.4	9.4	7.7
14	3.8	1.7	17	24	1.7	25	41	5.9	4.1	2.1	7.2	13
15	3.3	1.7	13	18	1.6	19	32	4.8	3.8	1.9	6.7	7.7
16	2.8	1.9	11	13	1.5	15	30	5.9	3.5	7.6	5.5	5.9
17	4.1	2.5	9.4	11	1.5	13	27	3.8	3.5	5.5	4.8	4.8
18	3.0	5.9	7.7	11	1.5	11	23	5.2	3.3	18	5.9	4.1
19	3.0	2.8	6.7	10	2.0	9.4	18	8.2	3.0	5.2	5.5	3.8
20	2.8	2.1	5.9	9.4	2.5	8.8	15	6.7	2.8	4.1	4.1	3.5
21	2.8	2.1	14	182	3.3	7.7	13	6.3	2.5	3.5	3.8	38
22	2.5	1.9	8.2	81	9.4	7.2	11	5.9	4.1	3.0	3.3	78
23	2.3	2.3	6.7	41	33	6.7	8.8	16	4.5	14	3.0	59
24	2.3	4.1	9.4	344	217	8.2	7.2	46	3.0	7.2	3.0	39
25	2.3	2.5	39	118	151	8.2	6.3	53	2.5	4.8	3.5	28
26	2.3	2.3	33	49	198	6.7	6.3	44	2.3	4.5	3.0	20
27	2.8	2.1	29	36	65	6.3	23	38	2.1	3.8	2.5	16
28	2.3	3.0	22	25	46	5.9	23	31	2.5	3.0	2.3	13
29	2.1	3.0	17	21	---	6.7	17	24	5.2	51	2.3	13
30	2.1	11	13	15	---	5.9	13	19	3.3	51	2.1	9.4
31	2.1	---	13	11	---	5.9	---	16	---	36	1.9	---
TOTAL	105.0	77.4	533.4	1755.4	793.8	592.6	589.2	425.3	166.4	254.8	234.7	615.8
MEAN	3.39	2.58	17.2	56.6	28.4	19.1	19.6	13.7	5.55	8.22	7.57	20.5
MAX	14	11	44	344	217	49	41	53	13	51	29	98
MIN	2.1	1.7	5.9	9.4	1.5	5.9	5.5	3.8	2.1	1.4	1.9	1.7
CFSM	.45	.35	2.31	7.59	3.81	2.56	2.63	1.84	.74	1.10	1.02	2.75
IN.	.52	.39	2.66	8.75	3.96	2.95	2.94	2.12	.83	1.27	1.17	3.07

CAL YR 1978 TOTAL 4459.4 MEAN 12.2 MAX 325 MIN 1.1 CFSM 1.64 IN 22.23
WTR YR 1979 TOTAL 6143.8 MEAN 16.8 MAX 344 MIN 1.4 CFSM 2.25 IN 30.63

01470756 MAIDEN CREEK AT VIRGINVILLE, PA

LOCATION.--Lat 40°30'51", long 75°53'00", Berks County, Hydrologic Unit 02040203, on right bank 0.9 mi (1.4 km) downstream from Sacony Creek, 0.9 mi (1.4 km) southwest of Virginville, and 1.0 mi (1.6 km) upstream from Moselem Creek.

DRAINAGE AREA.--159 mi² (412 km²).

PERIOD OF RECORD.--January 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 310 ft (94.5 m), from topographic map.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--6 years, 304 ft³/s (8.609 m³/s), 25.99 in/yr. (660 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,420 ft³/s (238 m³/s) Jan. 24, 1979, gage height, 12.67 ft (3.862 m); minimum, 26 ft³/s (0.74 m³/s) Sept. 9, 10, 15, 16, 1976; minimum gage height, 1.98 ft (0.604 m) July 19, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1972 reached a stage of 17.2 feet (5.24 m), from floodmarks, discharge, about 14,000 ft³/s (396 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (56.6 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 2	2215	2,960	83.8	6.98	2.128	Feb. 26	0815	5,640	160	9.79	2.984
Jan. 8	1045	2,820	79.9	6.80	2.073	July 29	unknown	unknown		unknown	
Jan. 21	2115	4,310	122	8.66	2.640	Sept. 6	1315	2,290	64.9	6.13	1.868
Jan. 24	2315	*8,420	238	*12.67	3.862	Sept. 22	unknown	unknown		unknown	
Feb. 24	1345	4,560	129	8.97	2.734						

Minimum discharge, 33 ft³/s (0.93 m³/s) Sept. 2, gage height, 2.07 ft (0.631 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	50	141	466	254	660	178	250	257	78	300	39
2	57	48	129	1720	208	605	178	220	236	75	250	37
3	58	48	126	1950	181	550	225	200	236	63	208	50
4	61	48	229	942	159	505	280	250	265	59	175	46
5	78	48	257	635	147	801	600	198	198	78	144	42
6	147	48	218	520	200	1130	466	169	178	59	126	1310
7	88	46	181	570	170	858	396	159	162	52	115	693
8	68	46	178	2340	150	670	349	144	147	46	96	409
9	66	44	763	1300	141	550	433	135	144	42	83	247
10	59	44	818	768	130	530	615	129	135	42	80	194
11	54	44	545	565	125	735	475	112	175	42	109	162
12	52	44	414	433	140	590	442	93	153	39	215	138
13	52	46	344	428	160	525	401	112	121	37	191	123
14	88	42	280	480	120	495	615	153	107	54	129	144
15	90	42	225	392	110	419	540	129	101	61	115	159
16	68	46	194	311	105	344	500	153	93	50	98	93
17	91	50	178	225	100	311	442	118	88	235	83	75
18	80	181	159	229	100	288	392	107	88	157	88	65
19	70	107	141	200	100	261	336	150	85	101	118	60
20	66	78	132	300	110	243	299	185	70	80	88	55
21	63	70	225	2880	120	225	265	153	68	70	75	400
22	57	63	194	1860	150	215	230	144	75	65	73	1500
23	54	61	153	719	200	201	210	400	126	250	63	1200
24	54	138	150	2740	3240	215	180	1000	80	150	66	800
25	52	104	708	3910	3360	243	170	1200	68	100	68	500
26	54	85	540	1030	3680	215	160	900	59	90	63	350
27	68	78	433	757	1330	185	500	700	54	80	54	300
28	68	91	336	605	840	178	550	550	54	70	50	250
29	57	96	311	466	---	181	400	450	126	1000	50	230
30	52	123	265	396	---	178	300	379	85	900	52	200
31	50	---	222	307	---	169	---	315	---	600	46	---
TOTAL	2079	2059	9189	30444	15830	13275	11127	9357	3834	4825	3471	9871
MEAN	67.1	68.6	296	982	565	428	371	302	128	156	112	329
MAX	147	181	818	3910	3680	1130	615	1200	265	1000	300	1500
MIN	50	42	126	200	100	169	160	93	54	37	46	37
CFSM	.42	.43	1.86	6.18	3.55	2.69	2.33	1.90	.81	.98	.70	2.07
IN.	.49	.48	2.15	7.12	3.70	3.11	2.60	2.19	.90	1.13	.81	2.31

CAL YR 1978 TOTAL 98627 MEAN 270 MAX 4600 MIN 42 CFSM 1.70 IN 23.07
WTR YR 1979 TOTAL 115361 MEAN 316 MAX 3910 MIN 37 CFSM 1.99 IN 26.99

SCHUYLKILL RIVER BASIN

01470779 TULPEHOCKEN CREEK NEAR BERNVILLE, PA

LOCATION.--Lat 40°24'48", long 76°10'19", Berks County, Hydrologic Unit 02040203, on left bank 30 ft (9.1 m) downstream from Kricks Mill Bridge, 0.4 mi (0.6 km) upstream from Mill Creek, and 3.5 mi (5.6 km) west of Bernville.

DRAINAGE AREA.--66.5 mi² (172.2 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 311.26 ft (94.872 m) Pennsylvania Department of Transportation Datum.

REMARKS.--Records good. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,560 ft³/s (157 m³/s) Jan. 24, 1979, gage height, 10.16 ft (3.097 m), from rating curve extended above 740 ft³/s (21 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 31 ft³/s (0.88 m³/s) Feb. 6, 1977, gage height, 1.59 ft (0.485 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1972 reached a stage of about 9.5 ft (2.90 m), from information by local resident, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 950 ft³/s (26.9 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 21	2015	1,800	51.0	6.26	1.908	Feb. 26	0615	2,490	70.5	7.69	2.344
Jan. 24	2115	*5,560	157	*10.16	3.097	Sept. 6	0945	1,020	28.9	4.97	1.515
Feb. 25	0200	1,400	39.6	6.17	1.881						

Minimum discharge, 42 ft³/s (1.19 m³/s) Sept. 1, gage height, 1.75 ft (0.533 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	50	61	119	194	264	124	119	113	100	68	44
2	52	49	55	312	175	205	128	117	124	100	95	45
3	51	49	58	213	165	187	128	121	126	92	77	44
4	51	49	75	167	161	183	135	126	133	85	60	44
5	52	49	64	149	149	349	200	114	108	78	56	47
6	71	49	57	136	142	394	167	94	108	72	54	522
7	54	48	58	165	138	301	157	92	101	69	53	135
8	52	48	56	563	133	266	153	90	98	68	52	105
9	52	47	133	277	128	239	175	88	108	67	56	90
10	54	47	105	223	121	237	196	85	108	66	53	83
11	55	47	81	194	117	282	153	84	106	63	59	90
12	55	46	76	177	121	223	149	83	91	62	80	88
13	55	46	76	167	126	211	146	88	87	61	67	85
14	73	45	75	169	101	209	185	88	84	61	55	88
15	60	45	72	149	95	191	161	84	81	66	53	91
16	59	47	69	136	95	177	151	87	91	60	50	71
17	59	49	69	131	91	173	159	78	97	59	48	67
18	53	60	67	126	90	167	151	81	94	57	51	64
19	53	49	57	116	85	161	146	92	77	55	55	62
20	52	47	53	116	85	155	140	83	75	54	50	60
21	50	46	78	1020	87	147	136	78	72	63	49	98
22	49	45	72	621	88	144	133	81	77	57	47	266
23	49	49	68	274	94	138	129	88	155	53	47	146
24	48	56	73	1860	781	155	126	155	109	53	59	126
25	49	52	210	2060	1150	159	124	133	101	51	60	117
26	51	51	121	661	1680	146	122	196	85	50	64	111
27	52	53	109	511	625	136	155	161	81	52	66	105
28	50	55	97	397	378	131	135	153	81	48	63	101
29	49	54	90	284	---	131	117	149	83	56	52	101
30	48	67	85	234	---	128	111	124	103	78	47	95
31	49	---	87	211	---	126	---	122	---	71	45	---
TOTAL	1659	1494	2507	11938	7395	6115	4392	3334	2957	2027	1791	3191
MEAN	53.5	49.8	80.9	385	264	197	146	108	98.6	65.4	57.8	106
MAX	73	67	210	2060	1680	394	200	196	155	100	95	522
MIN	48	45	53	116	85	126	111	78	72	48	45	44
CFSM	.81	.75	1.22	5.79	3.97	2.96	2.20	1.62	1.48	.98	.87	1.59
IN.	.93	.84	1.40	6.68	4.14	3.42	2.46	1.87	1.65	1.13	1.00	1.79

CAL YR 1978 TOTAL 48848 MEAN 134 MAX 2140 MIN 45 CFSM 2.02 IN 27.33
WTR YR 1979 TOTAL 48800 MEAN 134 MAX 2060 MIN 44 CFSM 2.02 IN 27.30

01470779 TULPEHOCKEN CREEK NEAR BERNVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1977 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 25.0°C July 23, 1978; minimum, freezing point on several days during winter months.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1				---	---	---	7.0	5.5	6.5	8.5	6.0	7.0
2				---	---	---	6.5	5.0	6.0	9.0	7.5	8.5
3				11.5	10.0	10.5	6.0	5.0	5.5	7.0	3.5	5.0
4				11.0	9.5	10.0	9.0	5.5	7.5	---	---	---
5				11.0	9.0	10.0	9.0	7.0	8.5	---	---	---
6				12.0	10.0	10.5	7.0	5.5	6.5	---	---	---
7				11.5	10.5	11.0	7.0	5.5	6.5	---	---	---
8				11.5	10.0	11.0	9.0	7.0	8.0	---	---	---
9				10.5	8.5	9.5	9.0	7.5	9.0	---	---	---
10				10.0	8.5	9.0	7.5	4.0	5.5	---	---	---
11				10.5	9.0	9.5	4.0	3.0	3.5	---	---	---
12				10.5	9.0	9.5	5.0	3.5	4.0	---	---	---
13				9.5	9.0	9.5	5.5	3.5	4.5	---	---	---
14				11.5	9.0	10.0	5.5	4.0	5.0	---	---	---
15				12.5	11.5	12.0	5.0	3.5	4.0	---	---	---
16				11.5	9.5	11.0	5.5	4.0	4.5	---	---	---
17				9.5	9.0	9.0	6.5	5.0	5.5	---	---	---
18				12.5	10.0	11.5	5.0	4.0	4.5	---	---	---
19				11.0	9.0	10.0	4.5	3.0	4.0	---	---	---
20				9.0	7.5	8.5	4.0	3.5	3.5	---	---	---
21				8.5	7.0	8.0	5.5	3.0	4.5	---	---	---
22				7.5	7.0	7.0	5.0	4.0	4.5	---	---	---
23				7.0	6.0	6.5	5.0	3.5	4.0	---	---	---
24				9.0	7.0	8.0	4.0	3.0	3.5	6.5	1.0	3.5
25				9.0	7.0	8.0	5.0	3.5	5.0	3.0	1.5	2.5
26				7.0	5.0	6.0	5.5	4.0	4.5	5.0	3.0	4.0
27				5.5	3.0	4.0	5.5	4.0	4.5	5.5	4.5	5.0
28				5.0	3.5	4.5	4.0	2.5	3.5	5.5	4.0	5.0
29				6.0	4.0	5.0	3.5	2.0	3.0	6.5	5.0	5.5
30				7.0	5.0	6.0	5.0	3.0	3.5	5.5	5.0	5.0
31				---	---	---	6.0	5.0	5.5	5.0	4.5	5.0
MONTH				12.5	3.0	9.0	9.0	2.0	5.0	9.0	1.0	5.0

01470779 TULPEHOCKEN CREEK NEAR BERNVILLE, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.5	3.0	3.5				---	---	---	16.0	13.5	15.0
2	4.0	2.0	3.0				---	---	---	15.0	12.0	13.5
3	4.0	2.5	3.5				---	---	---	14.0	12.5	13.5
4	5.5	4.0	4.5				---	---	---	14.5	13.0	14.0
5	4.5	1.5	2.5				---	---	---	15.5	12.5	14.0
6	2.5	.0	1.5				---	---	---	16.0	13.0	14.5
7	2.5	2.5	2.5				---	---	---	17.5	14.0	16.0
8	4.5	2.5	3.5				---	---	---	19.5	16.0	18.0
9	3.5	2.0	2.5				---	---	---	21.0	17.5	19.5
10	2.0	.5	1.5				---	---	---	21.5	19.0	20.5
11	1.5	.0	1.0				12.5	9.5	11.5	21.5	19.5	20.5
12	1.5	.0	.5				12.0	10.5	11.0	21.0	17.5	18.5
13	1.5	.0	1.0				10.5	8.5	9.5	17.5	16.5	17.0
14	1.5	.0	.5				10.0	7.5	9.0	16.5	15.5	16.0
15	3.0	1.5	2.0				11.5	9.0	10.5	18.5	15.5	17.0
16	3.0	2.0	2.5				10.5	9.0	9.5	18.0	16.0	17.0
17	2.0	.0	1.0				10.0	9.0	9.5	17.5	15.0	16.5
18	1.0	.0	.5				12.5	8.5	10.5	17.0	15.5	16.0
19	4.0	.0	1.5				12.5	9.0	11.5	15.5	14.5	15.0
20	4.5	.0	3.0				13.5	9.5	11.5	17.0	15.0	16.0
21	4.5	1.0	3.0				14.5	10.5	12.5	16.5	15.5	16.0
22	6.5	4.5	5.5				14.0	12.0	13.5	17.0	14.5	16.0
23	6.0	5.0	5.5				16.0	12.5	14.5	17.0	15.0	16.0
24	5.0	3.5	4.0				15.5	13.0	14.0	16.5	14.5	15.5
25	---	---	---				17.0	14.0	15.5	17.0	16.0	16.5
26	---	---	---				17.0	14.5	15.5	16.5	13.5	14.5
27	---	---	---				14.5	13.0	14.0	13.5	12.5	12.5
28	---	---	---				14.5	11.5	13.0	14.5	13.0	13.5
29	---	---	---				15.0	12.5	14.0	16.5	13.0	14.5
30	---	---	---				15.5	12.0	14.0	16.0	13.0	14.5
31	---	---	---				---	---	---	14.5	13.5	14.0
MONTH	6.5	.0	2.5				17.0	7.5	12.0	21.5	12.0	16.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	15.5	14.0	14.5	17.0	16.0	17.0	23.0	21.0	22.0	22.5	20.5	21.5
2	15.5	14.5	14.5	17.0	16.5	16.5	22.5	20.0	21.5	23.0	21.0	21.5
3	16.0	14.0	14.5	17.5	16.0	17.0	21.5	20.0	20.5	23.5	21.5	22.5
4	15.5	14.0	14.5	17.5	15.5	16.5	23.5	21.0	22.0	24.0	21.0	22.5
5	18.5	15.0	16.0	15.5	14.0	15.0	24.0	22.0	23.0	23.0	21.5	22.0
6	16.5	16.0	16.0	17.0	15.0	16.0	24.5	23.0	23.5	21.5	21.0	21.5
7	18.0	16.0	17.0	17.5	16.0	16.5	23.0	21.0	22.0	21.0	19.5	20.5
8	20.0	17.5	18.5	19.0	17.0	18.0	24.0	21.5	22.5	21.0	17.5	19.0
9	20.5	19.0	19.5	20.5	18.0	19.5	24.0	22.5	23.0	17.5	15.5	16.5
10	19.5	18.0	18.5	20.0	18.5	19.5	24.5	22.5	23.0	17.5	15.5	16.5
11	18.5	15.5	17.0	21.0	18.0	19.5	23.0	19.5	21.5	18.0	17.0	17.5
12	17.0	14.0	15.5	21.0	20.5	21.0	19.0	16.0	17.5	17.5	16.0	17.0
13	17.5	15.0	16.5	23.0	21.0	22.0	19.0	15.5	17.0	18.5	16.5	17.5
14	18.0	15.5	17.0	23.0	22.0	22.5	19.5	18.0	18.5	21.0	18.5	19.5
15	19.5	17.0	18.0	22.5	20.5	21.5	18.0	16.5	17.0	21.0	17.0	18.5
16	20.5	18.0	19.5	23.5	22.0	22.5	18.5	16.0	17.0	17.5	15.5	16.5
17	20.5	18.5	19.5	23.5	21.5	22.5	18.0	16.0	17.0	17.5	16.0	16.5
18	19.5	18.0	18.5	23.0	21.0	22.0	17.0	16.5	17.0	18.0	16.0	17.0
19	20.0	17.5	19.0	22.5	20.5	21.5	19.0	16.5	17.5	18.0	16.0	17.5
20	20.0	18.0	19.5	22.0	20.5	21.5	21.0	18.0	19.5	16.0	14.0	15.0
21	20.0	18.0	19.0	21.0	19.0	20.0	21.5	20.0	20.5	15.5	14.5	15.0
22	18.5	17.0	17.5	21.5	20.0	20.5	21.5	19.0	20.0	16.0	15.5	16.0
23	20.5	16.5	18.5	22.0	20.5	21.0	20.5	19.0	20.0	16.0	14.5	15.5
24	20.0	15.5	17.5	21.5	20.0	20.5	21.5	19.0	20.0	16.0	13.5	14.5
25	17.0	14.0	15.5	23.5	20.5	22.0	23.5	21.5	22.5	15.0	13.5	14.5
26	18.5	16.0	17.5	23.5	22.0	23.0	23.0	22.0	22.5	16.0	14.0	15.0
27	18.5	14.5	16.0	23.0	21.5	22.0	22.5	21.0	21.5	16.0	14.5	15.5
28	17.0	15.5	16.0	22.5	21.0	21.5	23.0	21.5	22.0	16.0	15.0	15.5
29	16.5	16.0	16.0	21.0	19.0	20.5	22.5	21.5	21.5	17.0	16.0	16.0
30	17.0	16.0	16.5	21.0	18.0	19.5	24.0	21.0	22.0	17.0	16.0	16.5
31	---	---	---	22.0	20.5	21.0	23.5	21.5	22.0	---	---	---
MONTH	20.5	14.0	17.0	23.5	14.0	20.0	24.5	15.5	20.5	24.0	13.5	17.5

01470800 TULPEHOCKEN CREEK AT BERNVILLE, PA

LOCATION.--Lat 40°25'32", long 75°06'51", Berks County, Hydrologic Unit 02040203, at single-span concrete bridge on Legislative Route 06074, 0.5 mi (0.8 km) south of Bernville, and 600 ft (183 m) above confluence with Northkill Creek.

DRAINAGE AREA.--84.8 mi² (220 km²).

PERIOD OF RECORD.--June 1972 to April 1979 (discontinued).

WATER-QUALITY DATA, OCTOBER 1978 TO APRIL 1979

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	ALKA-LINITY (MG/L AS CACO3)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
OCT										
17...	1000	410	7.9	10.0	9.9	34000	K20000	40000	174	5.6
NOV										
15...	1015	490	8.1	11.0	11.2	1900	200	660	180	5.1
DEC										
06...	0945	500	7.9	5.0	12.8	5300	800	3300	164	4.6
JAN										
02...	1130	385	7.6	7.0	--	--	--	--	--	4.1
30...	1015	485	7.8	4.5	--	7500	2700	7500	134	5.3
FEB										
27...	1030	250	7.5	2.5	--	K150000	5000	K200000	72	2.5
MAR										
20...	1045	460	8.0	9.0	12.1	K330	K30	K220	116	5.2
APR										
24...	0930	440	8.2	11.5	13.0	630	160	K48	--	4.9

DATE	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
17...	.05	5.6	.04	.00	.03	5.6	.080	.05	1.2
NOV									
15...	.06	5.2	.06	.00	.00	5.2	.050	.04	1.4
DEC									
06...	.08	4.7	.03	.32	.35	5.1	.090	.07	2.1
JAN									
02...	.06	4.2	.27	1.7	2.0	6.2	.400	.16	7.6
30...	.03	5.3	.01	.53	.54	5.8	.090	.05	2.3
FEB									
27...	.05	2.5	.62	.88	1.5	4.0	.410	.25	8.2
MAR									
20...	.03	5.2	.02	.14	.16	5.4	.040	.02	9.4
APR									
24...	.06	5.0	.03	.17	.20	5.2	.040	.02	8.8

K--Best estimate

SCHUYLKILL RIVER BASIN

01470825 NORTHKILL CREEK AT BERNVILLE, PA

LOCATION.--Lat 40°25'50", long 76°06'51", Berks County, Hydrologic Unit 02040203, at a retaining wall 670 ft (204 m) upstream from highway bridge on county road 0.2 mi (0.3 km) from Bernville, and 0.4 mi (0.6 km) from mouth.

DRAINAGE AREA.--42.0 mi^2 (109 km^2).

PERIOD OF RECORD.--June 1972 to April 1979 (discontinued).

WATER-QUALITY DATA, OCTOBER 1978 TO APRIL 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	ALKALINITY (MG/L AS CACO3)	NITROGEN, NITRATE TOTAL (MG/L AS N)
OCT										
17...	1030	--	--	--	10.1	2000	K30	K300	44	1.6
NOV										
15...	1045	190	7.6	10.5	11.2	K2700	170	130	58	.99
DEC										
06...	1000	160	7.1	3.5	14.0	2000	250	1400	26	2.7
JAN										
02...	1135	130	7.4	7.0	--	--	--	--	--	2.2
30...	1030	125	6.5	3.0	--	37000	2800	4200	12	2.2
FEB										
27...	1100	90	6.5	2.5	--	9500	6000	38000	14	1.2
MAR										
20...	1100	145	7.4	8.5	--	K50	K10	<1	28	.26
APR										
24...	0945	130	8.0	12.0	13.5	500	K33	K24	--	1.9

DATE	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
17...	.01	1.6	.02	.50	.52	2.1	.050	.03	4.4
NOV									
15...	.01	1.0	.06	.13	.19	1.2	.070	.05	3.0
DEC									
06...	.01	2.7	.01	.06	.07	2.8	.030	.02	2.5
JAN									
02...	.03	2.2	.10	1.8	1.9	4.1	.270	.06	11
30...	.01	2.2	.12	.20	.32	2.5	.030	.01	.8
FEB									
27...	.02	1.2	.19	.37	.56	1.8	.040	.05	4.5
MAR									
20...	.01	.27	.04	.00	.01	.28	.030	.02	1.1
APR									
24...	.03	1.9	.02	.14	.16	2.1	.040	.02	4.9

K--Best Estimate

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA

LOCATION.--Lat 40°22'14", long 76°01'32", Berks County, Hydrologic Unit 02040203, on right bank 1 mi (1.6 km) upstream from Rebers Bridge and Plum Creek, 1 mi (1.6 km) east of Blue Marsh, 3 mi (4.8 km) north of Sinking Spring, and 5.5 mi (8.8 km) northwest of Reading. Water-quality sampling site at Rebers bridge 1.0 mi (1.6 km) downstream.

DRAINAGE AREA.--175 mi² (453 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1965 to current year.

REVISED RECORDS.--WDR PA-72: 1969-1971 (M).

GAGE.--Water-stage recorder. Datum of gage is 230.06 ft (70.122 m) Western Berks Water Authority datum. Prior to Nov. 25, 1974, water-stage recorder at site 0.3 mi (0.5 km) downstream at same datum.

REMARKS.--Records fair. Flow regulated by Blue Marsh Reservoir (station 01470870) 0.8 mi (1.3 km) upstream.

AVERAGE DISCHARGE.--14 years, 288 ft³/s (8.156 m³/s), 22.34 in/yr (567 mm/yr), adjusted for storage since April 1979.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,100 ft³/s (456 m³/s) June 22, 1972, gage height, 18.7 ft (5.70 m), from floodmarks, from rating curve extended above 3,000 ft³/s (85.0 m³/s) on basis of runoff comparison with downstream station; minimum since construction of dam, 5.8 ft³/s (0.16 m³/s) Nov. 17, 1977; minimum gage height, 1.45 ft (0.442 m) July 29, 30, 31, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,790 ft³/s (107 m³/s) May 30, gage height, 7.03 ft (2.143 m); minimum discharge, 28 ft³/s (0.79 m³/s) June 20; minimum gage height, 2.20 ft (0.671 m) Feb. 6, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	84	139	375	1470	2010	205	185	60	88	76	62
2	86	84	122	913	870	1890	217	142	56	84	74	62
3	84	84	118	1340	556	1760	232	160	56	86	72	63
4	86	84	194	842	404	1590	266	257	60	84	71	65
5	93	84	223	591	359	1430	467	244	72	86	71	69
6	165	84	185	483	320	1390	408	152	139	88	69	74
7	110	84	163	477	300	1300	343	120	62	88	67	76
8	93	88	160	1410	280	1120	310	134	60	88	69	76
9	90	84	404	1240	270	935	328	149	62	86	67	82
10	90	82	539	1090	265	721	488	160	62	84	65	84
11	93	82	351	877	260	645	355	152	62	82	65	82
12	93	82	296	615	260	870	328	142	65	82	56	88
13	93	82	266	461	260	683	314	144	65	80	56	90
14	139	82	241	461	260	467	408	134	63	80	60	86
15	118	80	214	440	250	391	387	139	63	80	58	88
16	104	86	199	367	250	328	336	134	62	78	58	88
17	113	90	191	325	260	307	321	127	60	67	56	97
18	99	144	171	296	250	286	296	127	58	134	58	118
19	95	108	160	280	250	279	273	132	60	76	58	115
20	93	93	144	300	280	250	254	125	84	286	56	106
21	93	88	217	1230	250	238	241	125	63	97	56	108
22	90	86	199	2470	250	223	229	130	63	125	56	637
23	88	88	168	1770	300	214	168	115	65	154	56	789
24	86	113	165	1180	1410	250	197	142	72	104	58	457
25	82	104	696	404	2630	283	270	404	80	97	58	732
26	88	95	510	1520	994	254	202	134	82	95	58	678
27	99	97	375	3170	1090	229	314	137	80	93	58	193
28	93	108	325	3110	2100	217	367	134	82	93	60	174
29	87	104	321	2900	---	217	266	120	90	86	60	208
30	82	134	279	2590	---	208	235	1110	88	78	62	238
31	80	---	250	2170	---	202	---	60	---	76	62	---
TOTAL	2990	2788	7985	35697	16698	21187	9025	5670	2096	3005	1926	5881
MEAN	96.5	92.9	258	1152	596	683	301	183	69.9	96.9	62.1	196
MAX	165	144	696	3170	2630	2010	488	1110	139	286	76	789
MIN	80	80	118	280	250	202	168	60	56	67	56	62
MEAN≠	96.5	92.9	258	1152	596	683	302	325	190	102	79.4	286
CFSM≠	.55	.53	1.47	6.58	3.41	3.91	1.73	1.86	1.09	.58	.45	1.63
IN≠	.64	.59	1.70	7.59	3.55	4.50	1.93	2.14	1.21	.67	.52	1.82

CAL YR 1978 TOTAL 120022 MEAN 329 MAX 2350 MIN 79 MEAN≠ 329 CFSM≠ 1.88 IN≠ 25.51
WTR YR 1979 TOTAL 114948 MEAN 315 MAX 3170 MIN 56 MEAN≠ 346 CFSM≠ 1.98 IN≠ 26.87

≠ Adjusted for change in contents in Blue Marsh Reservoir.

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1968 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1968 to current year.

REMARKS.--Temperature recorder located at gaging station 1.0 mi (1.6 km) upstream from sampling site.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 34.0°C Oct. 2, 1968; minimum, freezing point on several days during Dec. 1970, Jan., Mar. 1971, Feb. 1975, Feb. 1979.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.5°C June 23, July 17, 19; minimum, 0.0°C Feb. 7, 10, 12-14, 17-20.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)
OCT								
17...	1100	113	408	8.1	10.5	11.0	3000	730
NOV								
15...	1100	80	410	8.5	11.0	17.8	240	K40
DEC								
06...	1030	185	330	7.9	4.5	13.4	2100	800
JAN								
02...	1200	794	275	7.5	7.0	--	--	--
30...	1045	2610	225	7.3	3.0	--	>40000	>6000
FEB								
27...	1115	223	120	7.0	2.5	--	18000	3700
MAR								
20...	1200	250	370	8.0	8.5	12.2	2700	270
APR								
24...	1030	134	340	8.8	14.0	15.3	1500	370
MAY								
22...	1200	120	380	8.6	20.0	12.6	--	--
JUN								
26...	1500	84	365	8.2	17.0	12.0	--	--
JUL								
24...	1530	101	350	7.4	18.0	8.2	--	--
AUG								
21...	1010	56	350	7.1	19.0	7.0	--	--
SEP								
05...	1435	--	--	--	20.5	--	--	--
18...	1645	--	--	--	--	--	--	--

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	ALKA-LINITY (MG/L AS CACO3)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)
OCT									
17...	400	132	4.4	.04	4.4	.04	.44	.48	4.9
NOV									
15...	K64	140	3.8	.04	3.8	.06	.09	.15	4.0
DEC									
06...	4800	90	.64	.05	.69	.02	.20	.22	.91
JAN									
02...	--	--	3.4	.04	3.4	.18	1.0	1.2	4.6
30...	>200000	62	2.6	.02	2.6	.07	.63	.70	3.3
FEB									
27...	K200000	26	1.2	.03	1.2	.62	.98	1.6	2.8
MAR									
20...	K220	110	4.2	.03	4.2	.07	.82	.89	5.1
APR									
24...	400	--	3.8	.04	3.8	.03	.12	.15	4.0
MAY									
22...	--	112	2.9	.09	3.0	.11	.46	.57	3.6
JUN									
26...	--	--	2.3	.12	2.4	.09	.44	.53	2.9
JUL									
24...	--	--	.44	.05	.49	1.0	.50	1.5	2.0
AUG									
21...	--	--	.54	.06	.60	.89	.41	1.3	1.9
SEP									
05...	--	--	1.1	.05	1.1	.62	.38	1.0	2.1
18...	--	--	1.7	.07	1.8	.54	.56	1.1	2.9

K--Best Estimate

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS (UG/L)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)
OCT								
17...	.120	--	.08	--	5.2	--	--	--
NOV								
15...	.080	--	.06	--	4.9	--	--	--
DEC								
06...	.100	--	.07	--	1.8	--	--	--
JAN								
02...	.190	--	.09	--	--	--	--	--
30...	.220	--	.09	--	3.9	--	--	--
FEB								
27...	.380	--	.19	--	7.2	--	--	--
MAR								
20...	.170	--	.04	--	4.9	--	--	--
APR								
24...	.060	--	.03	--	4.3	--	--	--
MAY								
22...	.050	--	.01	.00	4.0	--	--	--
JUN								
26...	.050	.030	.01	--	--	0	--	6
JUL								
24...	.190	.180	.12	--	--	1	--	8
AUG								
21...	.070	.100	.03	--	--	0	--	5
SEP								
05...	.040	.010	.02	--	--	--	--	--
18...	.050	.020	.02	--	--	4	4	--

DATE	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)
DEC							
18...	0	<10	20	20	20	.04	90

SCHUYLKILL RIVER BASIN

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.0	14.0	15.0	11.0	8.5	9.5	6.5	4.5	5.5	7.0	5.0	6.0
2	16.0	14.0	15.5	10.5	7.5	9.0	5.5	4.0	5.0	7.5	7.0	7.0
3	15.0	12.5	14.0	11.0	7.5	9.0	5.5	5.0	5.0	6.5	2.5	4.5
4	15.0	13.5	14.0	9.5	8.5	9.0	8.0	5.5	7.0	2.5	2.0	2.0
5	14.5	13.5	14.0	10.5	8.5	9.5	8.0	7.0	7.5	3.0	2.0	2.5
6	16.0	14.0	15.0	12.0	9.0	10.0	7.0	5.5	6.5	4.0	2.5	3.0
7	14.5	13.0	14.0	11.5	9.0	10.5	7.0	5.5	6.0	4.0	3.5	3.5
8	13.0	11.5	12.0	11.0	10.0	10.5	8.5	7.0	7.5	4.0	3.5	3.5
9	13.0	10.5	11.5	10.5	8.5	9.5	9.0	7.0	8.5	3.5	2.5	3.5
10	13.5	9.5	11.5	10.5	7.5	9.0	7.0	4.0	5.5	2.5	2.0	2.5
11	14.5	11.0	12.5	10.0	8.5	9.0	4.0	3.0	3.5	2.5	2.0	2.5
12	15.5	12.0	13.5	10.0	8.5	9.0	4.5	3.5	3.5	2.5	1.5	2.0
13	15.5	13.5	14.5	9.5	8.5	9.0	5.0	3.5	4.5	2.5	2.0	2.0
14	15.0	14.0	14.5	11.0	8.5	10.0	4.5	4.0	4.0	4.0	3.0	3.5
15	13.5	12.0	12.5	12.0	10.5	11.5	4.5	3.0	4.0	4.0	2.0	2.5
16	12.0	9.5	10.5	12.0	9.5	10.5	5.0	3.5	4.0	3.5	2.0	2.5
17	12.5	10.0	11.0	9.5	8.5	9.0	5.0	4.0	5.0	3.0	2.0	2.5
18	11.5	9.0	10.5	11.5	9.0	10.5	4.5	3.5	4.0	2.0	2.0	2.0
19	12.0	10.5	11.0	10.5	9.0	9.5	3.5	2.5	2.5	1.5	1.0	1.5
20	11.5	11.0	11.0	9.0	7.0	8.0	3.0	2.0	2.5	1.5	1.0	1.5
21	12.5	9.0	10.5	7.5	7.0	7.0	4.0	2.5	3.5	1.5	1.5	1.5
22	13.0	9.5	11.0	7.0	6.5	6.5	4.5	3.5	4.0	2.0	1.5	2.0
23	13.5	10.5	12.0	7.0	6.5	6.5	4.0	2.5	3.5	2.5	2.0	2.0
24	12.5	10.0	11.0	8.5	7.0	7.5	3.5	2.0	2.5	4.0	2.5	3.0
25	11.5	8.5	10.0	8.0	7.0	7.0	4.0	3.5	3.5	4.0	3.5	4.0
26	12.0	10.5	11.0	6.5	5.0	5.5	4.0	3.0	3.5	3.5	2.5	3.0
27	13.0	11.5	12.0	5.0	2.5	3.5	4.0	2.5	3.5	2.0	2.0	2.0
28	12.0	9.5	11.0	5.0	2.5	3.5	2.5	1.5	2.0	2.0	2.0	2.0
29	12.0	9.0	10.0	5.0	2.5	4.0	2.0	2.0	2.0	2.0	2.0	2.0
30	11.0	7.5	9.0	6.0	4.5	5.0	3.5	1.5	2.5	3.0	2.0	2.5
31	11.0	8.0	9.5	---	---	---	4.5	3.5	4.0	3.0	2.5	3.0
MONTH	16.0	7.5	12.0	12.0	2.5	8.5	9.0	1.5	4.5	7.5	1.0	3.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.5	2.0	2.5	2.0	1.5	1.5	14.0	12.0	13.0	15.5	13.0	14.5
2	2.0	1.0	1.5	2.5	2.0	2.0	13.0	9.5	11.0	15.5	13.5	14.0
3	2.0	1.0	1.5	3.5	2.5	3.0	9.5	9.0	9.0	14.5	13.5	14.0
4	3.5	1.5	2.5	5.0	3.5	4.0	9.0	7.0	7.5	14.0	13.5	14.0
5	2.0	.5	1.0	6.0	5.0	5.5	9.0	7.0	8.0	14.0	13.5	14.0
6	1.0	.5	.5	7.0	6.0	6.5	8.5	7.0	8.0	14.0	13.5	13.5
7	.5	.0	.5	7.0	7.0	7.0	8.0	5.0	6.5	---	---	---
8	1.0	.5	.5	7.0	6.5	7.0	7.5	6.0	7.0	---	---	---
9	1.0	.5	.5	7.0	6.5	6.5	7.0	6.5	6.5	---	---	---
10	.5	.0	.5	7.5	7.0	7.0	9.0	5.5	7.0	---	---	---
11	.5	.5	.5	7.5	6.5	7.0	11.0	7.0	9.0	---	---	---
12	.5	.0	.5	6.5	4.0	5.0	10.5	9.5	9.5	---	---	---
13	.5	.0	.0	6.5	4.0	5.0	9.5	8.0	9.0	---	---	---
14	.5	.0	.5	7.5	7.0	7.0	9.0	7.0	8.0	---	---	---
15	.5	.5	.5	7.0	4.0	5.5	10.0	8.5	9.0	---	---	---
16	.5	.5	.5	5.5	2.5	4.0	9.5	8.5	9.0	---	---	---
17	.5	.0	.5	8.0	4.0	6.0	9.0	8.0	8.5	---	---	---
18	.5	.0	.0	9.0	7.0	8.0	11.5	7.5	9.5	---	---	---
19	.5	.0	.5	9.0	6.5	8.0	12.0	8.5	10.5	---	---	---
20	.5	.0	.5	10.0	6.5	8.0	13.0	9.0	11.0	---	---	---
21	.5	.5	.5	11.0	7.0	9.0	14.0	9.5	12.0	---	---	---
22	.5	.5	.5	12.0	8.0	10.0	14.0	11.5	13.0	---	---	---
23	.5	.5	.5	12.0	9.0	10.5	16.0	12.0	14.0	---	---	---
24	.5	.5	.5	11.0	10.5	11.0	16.0	14.0	14.5	---	---	---
25	.5	.5	.5	10.5	8.5	10.0	17.0	14.0	15.0	---	---	---
26	2.0	.5	1.5	8.5	6.0	7.0	15.5	14.5	15.0	---	---	---
27	2.0	1.5	2.0	7.0	5.0	6.0	14.5	13.5	14.0	---	---	---
28	1.5	1.5	1.5	9.0	5.0	7.0	14.0	12.0	13.0	---	---	---
29	---	---	---	10.5	7.0	8.5	15.5	12.0	13.5	---	---	---
30	---	---	---	12.5	9.5	11.0	15.5	12.0	13.5	---	---	---
31	---	---	---	14.0	11.0	12.5	---	---	---	---	---	---
MONTH	3.5	.0	1.0	14.0	1.5	7.0	17.0	5.0	10.5	15.5	13.0	14.0

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	20.0	18.0	19.0	17.5	17.0	17.0	20.5	18.5	19.0
2	---	---	---	20.0	19.0	19.5	18.0	17.0	17.5	20.0	18.5	19.0
3	---	---	---	21.0	19.5	20.0	17.5	17.0	17.5	20.5	19.0	19.5
4	---	---	---	20.0	18.5	19.0	18.5	17.0	17.5	21.0	18.5	19.5
5	---	---	---	19.5	18.5	19.0	18.5	17.0	17.5	20.0	19.0	19.5
6	15.5	14.5	15.0	20.0	18.5	19.0	18.5	17.0	17.5	20.5	19.0	20.0
7	16.0	14.5	15.0	20.0	18.5	19.0	18.5	17.0	17.5	20.5	19.0	19.5
8	16.0	14.5	15.0	20.0	18.5	19.5	18.5	17.5	18.0	20.5	19.0	19.5
9	15.5	14.5	15.0	20.5	19.0	19.5	19.0	17.0	18.0	20.5	18.5	19.0
10	15.5	14.5	15.0	19.5	19.0	19.0	19.0	17.5	18.0	20.5	18.5	19.5
11	15.5	14.5	15.0	20.5	19.0	19.5	18.0	17.5	17.5	20.5	19.0	19.5
12	16.0	14.0	15.0	21.0	19.5	20.0	17.5	17.0	17.5	20.5	18.5	19.0
13	16.5	14.0	15.0	21.0	20.0	20.5	18.5	17.0	17.5	20.5	18.5	19.0
14	16.5	14.0	15.0	20.5	20.0	20.0	18.5	17.5	17.5	20.0	18.5	19.5
15	17.0	14.5	15.5	21.0	20.0	20.5	18.0	17.5	17.5	20.0	18.5	19.0
16	16.5	14.5	15.5	21.0	20.0	20.5	19.0	17.5	18.0	20.0	18.0	19.0
17	16.0	15.0	15.5	21.5	17.0	20.0	19.5	17.5	18.0	20.0	18.5	19.0
18	16.0	15.0	15.5	21.0	16.5	18.5	18.0	17.5	18.0	20.0	18.5	19.0
19	17.5	14.5	16.0	21.5	20.5	21.0	19.0	18.0	18.5	20.0	18.5	19.0
20	20.5	17.0	19.5	21.0	16.5	19.5	19.5	18.0	18.5	19.5	18.0	18.5
21	21.0	19.5	20.0	17.0	16.5	16.5	19.0	18.0	18.5	18.5	18.5	18.5
22	20.5	19.5	20.0	17.0	16.0	17.0	19.5	18.0	18.5	19.5	18.5	19.0
23	21.5	19.5	20.5	17.5	16.5	17.0	19.0	18.0	18.5	19.5	19.0	19.5
24	20.5	19.5	20.0	17.0	16.5	17.0	19.5	18.5	19.0	19.0	18.0	18.5
25	20.5	18.5	19.5	17.5	16.5	17.0	20.0	18.5	19.0	18.5	17.5	18.0
26	20.5	18.5	19.5	17.5	17.0	17.0	19.5	18.5	19.0	18.5	17.5	17.5
27	21.0	19.0	20.0	17.5	16.5	17.0	19.5	18.5	19.0	18.5	17.0	18.0
28	20.0	19.0	19.5	17.5	16.5	17.0	19.5	18.5	19.0	18.5	18.0	18.5
29	19.5	18.5	19.0	17.0	16.5	17.0	19.5	18.5	19.0	18.5	18.0	18.5
30	19.5	18.5	19.0	17.5	16.5	17.0	20.0	18.5	19.0	18.0	18.0	18.0
31	---	---	---	17.5	17.0	17.0	20.5	18.5	19.0	---	---	---
MONTH	21.5	14.0	17.0	21.5	16.0	18.5	20.5	17.0	18.0	21.0	17.0	19.0

SCHUYLKILL RIVER BASIN

01471000 TULPEHOCKEN CREEK NEAR READING, PA

LOCATION.--Lat 40°22'08", long 75°58'46", Berks County, Hydrologic Unit 02040203, on right bank 15 ft (4.6 m) upstream from covered bridge, 1 mi (2 km) downstream from Cacoosing Creek, 2.5 mi (4.0 km) upstream from mouth, and 3.5 mi (5.6 km) northwest of square at Reading. Water-quality sampling site at covered bridge 15 ft (4.6 m) downstream.

DRAINAGE AREA.--211 mi^2 (546 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for October, November 1950, published in WSP 1722.

REVISED RECORDS.--WSP 1382: 1951-53, 1954(M). WDR PA-67: 1965(M). WDR PA-72: 1971(M).

GAGE.--Water-stage recorder. Datum of gage is 216.60 ft (66.020 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Blue Marsh Reservoir (station 01470870) 3.9 mi (6.3 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--29 years, 315 ft^3/s (8.921 m^3/s), 20.29 in/yr (515 mm/yr), adjusted for storage since April 1979.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,000 ft^3/s (481 m^3/s) June 23, 1972, gage height, 15.65 ft (4.770 m), from floodmark in gage shelter, from rating curve extended above 3,500 ft^3/s (99 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 23 ft^3/s (0.65 m^3/s) Dec. 1, 1964, gage height, 0.94 ft (0.287 m), result of upstream shutoff.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,570 ft^3/s (158 m^3/s) Jan. 24, gage height, 7.14 ft (2.176 m); minimum, 53 ft^3/s (1.50 m^3/s) June 20, gage height, 1.12 ft (0.341 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	110	199	456	1450	1970	325	296	104	135	95	92
2	116	110	166	1060	785	1890	335	232	107	132	98	95
3	110	110	161	1060	553	1780	355	249	107	129	101	95
4	119	110	254	854	434	1670	407	355	110	139	98	95
5	126	110	281	638	340	1600	619	360	119	139	95	95
6	219	110	224	541	286	1590	577	236	203	139	95	277
7	150	110	195	552	280	1510	500	191	101	139	92	135
8	122	116	191	1590	270	1360	461	191	98	135	95	116
9	119	110	506	1410	260	1170	495	207	96	135	92	110
10	116	110	619	1270	250	855	664	211	98	135	98	104
11	119	107	416	869	285	819	529	191	101	135	98	98
12	116	107	345	664	285	1060	495	175	96	132	119	98
13	116	107	305	541	240	826	472	175	95	132	101	98
14	166	104	277	541	240	645	595	168	95	135	101	110
15	153	104	245	512	240	565	565	150	89	135	98	104
16	130	110	228	434	240	489	512	142	89	132	98	101
17	142	116	224	386	250	461	489	122	92	119	95	116
18	129	195	199	350	240	439	456	129	92	179	98	129
19	122	142	186	300	240	423	418	146	95	126	101	129
20	122	113	187	315	280	391	396	126	110	267	95	122
21	119	107	258	1720	260	370	376	116	86	116	95	179
22	113	104	201	2260	250	355	355	116	92	135	95	613
23	113	107	203	1680	335	340	286	132	96	168	95	704
24	110	150	199	2360	1070	366	291	263	98	113	95	428
25	110	132	704	785	2740	434	396	434	104	104	98	626
26	116	122	586	1550	2120	396	310	163	101	107	95	595
27	129	122	450	2690	1370	360	450	172	101	116	95	195
28	122	143	339	2620	2060	345	535	157	116	107	92	172
29	113	143	334	2440	---	346	402	139	191	113	92	207
30	110	195	295	2210	---	330	355	751	135	110	92	240
31	104	---	300	1920	---	315	---	116	---	95	89	---
TOTAL	3686	3636	9323	36978	18173	25510	13421	6631	3229	4133	2996	6278
MEAN	125	121	301	1193	649	823	447	214	108	133	96.6	209
MAX	219	195	704	2690	2740	1970	664	751	203	267	119	704
MIN	104	104	161	300	240	315	286	116	86	95	89	92
MEAN≠	125	121	301	1193	649	823	449	356	228	139	114	299
CFSM≠	.59	.57	1.43	5.65	3.08	3.90	2.13	1.69	1.08	.66	.54	1.42
IN≠	.69	.64	1.64	6.52	3.20	4.50	2.37	1.94	1.21	.76	.62	1.58

CAL YR 1978 TOTAL 139403 MEAN 382 MAX 2510 MIN 104 MEAN≠ 382 CFSM≠ 1.81 IN≠ 24.58
WTR YR 1979 TOTAL 134194 MEAN 368 MAX 2740 MIN 86 MEAN≠ 399 CFSM≠ 1.89 IN≠ 25.68

≠ Adjusted for change in contents in Blue Marsh Reservoir.

01471000 TULPEHOCKEN CREEK NEAR READING, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to current year.

WATER-QUALITY DATA, DECEMBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	NITROGEN, TOT IN BOTTOM MATERIAL (MG/KG AS N)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
DEC 19...	0930	--	380	8.0	.5	13000	870	5	--	<10
SEP 06...	1025	344	211	7.3	--	--	--	--	0	--

DATE	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)
DEC 19...	20	--	30	--	40	.00	--	--	120	10
SEP 06...	--	48	--	24	--	--	23	160	--	--

DATE	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCB, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)
DEC 19...	37	--	--	--	--	--	--	--	--	--
SEP 06...	--	.00	.1	.00	.00	.0	.00	.00	.00	.00

DATE	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
DEC 19...	--	--	--	--	--	--	--	--	--	--
SEP 06...	.00	.00	.00	.00	.00	.00	.00	0	495	460

SCHUYLKILL RIVER BASIN

01471510 SCHUYLKILL RIVER AT READING, PA

LOCATION.--Lat 40°19'52", long 75°56'22", Berks County, Hydrologic Unit 02040203, on right bank at West Reading, 1,500 ft (457 m) downstream from Penn Avenue Bridge, and 1.1 mi (1.8 km) downstream from Tulpehocken Creek.

DRAINAGE AREA.--880 mi² (2,280 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1914 to Sept. 1915, Oct. 1919 to Sept. 1930 and June 30, 1977 to current year. Monthly discharge only prior to current year published in W.S.P.-1302. Diversion by Schuylkill Navigation Canal included during the navigation seasons of 1914-15.

REVISED RECORDS.--WRD PA-78-1: 1977.

GAGE.--Water-stage recorder. Datum of gage is 185.50 ft (56.540 m) Pennsylvania Railroad Datum. May 7, 1914 to Sept. 30, 1930, nonrecording gage at site 1,500 ft (457 m) upstream at same datum.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--14 years (Water years 1915, 1920-30, 1978-79), 1,580 ft³/s (44.75 m³/s), 24.35 in/yr (618 mm/yr) 1914-15 adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,500 ft³/s (1,060 m³/s) Jan. 25, 1979, gage height, 17.36 ft (5.291 m), from rating curve extended above 16,000 ft³/s (453 m³/s); minimum observed, 82 ft³/s (2.32 m³/s) Aug. 12, 1930, gage height, -1.19 ft (-0.363 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 23, 1972, reached a stage of about 31.3 ft (9.540 m) present datum, from floodmarks, discharge, about 90,000 ft³/s (2,550 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,800 ft³/s (164 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 3	0315	10,600	300	7.54	2.298	Feb. 26	0715	25,600	725	13.43	4.093
Jan. 8	1345	10,700	303	7.59	2.313	Mar. 6	1500	10,500	297	7.47	2.277
Jan. 21	unknown	15,200	430	9.50	2.896	May 25	1700	6,380	181	5.49	1.673
Jan. 25	0415	*37,500	1,060	*17.36	5.291	Sept. 6	unknown	8,000	227	unknown	
Feb. 25	0345	16,600	470	10.06	3.066	Sept. 22	unknown	5,800	164	unknown	

Minimum discharge, 368 ft³/s (10.4 m³/s) Nov. 14, 15, gage height, 1.35 ft (0.411 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	463	479	900	2150	3350	5630	1600	1840	1760	856	600	400
2	463	455	835	5830	2600	5160	1590	1590	1590	690	750	400
3	455	447	835	9000	2100	4840	1740	1540	1520	612	800	430
4	479	439	1120	5650	1940	4500	1930	1980	1600	621	650	400
5	531	455	1690	4100	1670	5710	2990	1730	1360	700	580	400
6	803	439	1490	3360	1420	9510	2990	1410	1380	650	530	5500
7	730	431	1340	3210	1500	7900	2640	1270	1160	600	500	5000
8	550	431	1290	9000	1520	6100	2380	1190	1060	560	490	2500
9	513	431	3000	7120	1340	4870	2460	1170	988	540	480	1500
10	495	423	4250	5140	1200	4120	3350	1120	983	520	470	1200
11	479	415	3190	4030	1150	4530	2790	1210	976	500	600	1100
12	479	415	2600	3240	1100	4180	2610	1100	943	500	1000	1000
13	471	399	2240	2900	1150	3700	2460	1180	803	400	1100	950
14	1060	399	1990	2900	1050	3320	2990	1340	730	700	700	900
15	1170	391	1740	2630	1100	2960	3000	1150	680	800	600	1200
16	835	407	1540	2220	1050	2550	2730	1120	660	550	500	900
17	806	439	1410	2010	950	2360	2570	976	650	900	450	800
18	741	835	1250	1800	900	2220	2350	976	612	700	500	750
19	670	820	1120	1500	850	2070	2120	1270	594	650	650	700
20	640	603	1040	1500	900	1920	1960	1300	585	600	550	650
21	590	550	1400	7650	1000	1800	1850	1190	513	900	450	800
22	567	531	1390	10500	1200	1720	1740	1110	660	650	430	5000
23	531	540	1140	5290	1400	1610	1560	1410	867	600	410	4000
24	531	670	1120	11000	7400	1760	1460	3540	660	750	450	3000
25	463	690	3190	24700	13600	2100	1560	5320	550	650	600	2500
26	487	612	3110	8390	17500	1960	1440	4700	504	600	550	2000
27	603	576	2540	7500	7500	1800	1990	3870	471	650	500	1500
28	612	680	2110	6560	6160	1700	2940	3200	720	550	450	1250
29	522	690	1810	5540	---	1690	2280	2790	1120	500	430	1200
30	504	782	1630	4860	---	1650	2010	2990	921	1500	410	1200
31	471	---	1500	4150	---	1560	---	2050	---	1000	410	---
TOTAL	18766	15846	55970	176150	84760	107660	68080	58692	27588	21079	17790	49210
MEAN	605	528	1805	5682	3027	3473	2269	1893	920	680	574	1640
MAX	1170	835	4250	24700	17500	9510	3350	5320	1760	1500	1100	5500
MIN	455	391	835	1500	850	1560	1440	976	471	400	410	400
CFSM	.69	.60	2.05	6.46	3.44	3.95	2.58	2.15	1.05	.77	.65	1.86
IN.	.79	.67	2.37	7.45	3.58	4.55	2.88	2.48	1.17	.89	.75	2.08

CAL YR 1978 TOTAL 649147 MEAN 1778 MAX 17700 MIN 391 CFSM 2.02 IN 27.44
WTR YR 1979 TOTAL 701591 MEAN 1922 MAX 24700 MIN 391 CFSM 2.18 IN 29.66

01471510 SCHUYLKILL RIVER AT READING, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1979 to current year.

WATER-QUALITY DATA, APRIL 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ANTIMONY, TOTAL (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
APR 19...	1330	2270	287	6.9	11.5	0	4	0	0	3	4
MAY 25...	1030	6698	255	6.4	--	1	3	0	0	13	17
SEP 06...	1800	8680	338	6.8	--	--	--	--	1	41	55

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCB, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)
APR 19...	.5	13	0	0	50	.00	.0	.00	.00	.0	.00
MAY 25...	<.5	29	0	0	40	.00	.0	.00	.00	.0	.00
SEP 06...	--	65	--	--	230	.00	.1	.00	.00	.0	.00

DATE	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)
APR 19...	.00	.00	--	.00	.00	.00	.00	.00	.00	--	--
MAY 25...	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	--
SEP 06...	.00	.00	--	.00	.00	.00	.00	.00	.00	--	.00

DATE	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
APR 19...	--	--	.00	--	0	--	.00	.00	.00	18	61
MAY 25...	.00	.00	.00	.00	0	.00	.06	.01	.00	33	596
SEP 06...	--	--	.00	--	0	--	--	--	--	348	8060

01471980 MANATAWNY CREEK NEAR POTTSTOWN, PA

LOCATION.--Lat 40°16'22", long 75°40'49", Berks County, Hydrologic Unit 02040203, on left bank about 180 ft (55 m) upstream from bridge on Manatawny Street, 0.7 mi (1.1 km) downstream from Ironstone Creek, 2.4 mi (3.9 km) northwest of Pottstown, 3.1 mi (5.0 km) upstream from mouth, and 4.7 mi (7.6 km) southwest of Boyertown.

DRAINAGE AREA.--85.5 mi² (221.4 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 150.00 ft (45.720 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--5 years, 156 ft³/s (4.418 m³/s), 24.75 in/yr (629 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,390 ft³/s (153 m³/s) Jan. 24, 1979, gage height, 11.19 ft (3.411 m); minimum, 22 ft³/s (0.62 m³/s) Sept. 10, 14, 15, 1976, Dec. 30, 1977; minimum gage height, 1.80 ft (0.549 m) Dec. 30, 1976, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 22, 1972, reached a stage of 17.1 ft (5.21 m), from floodmarks, discharge, about 9,600 ft³/s (272 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s (34.0 m³/s) and maximum(*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Jan. 2	1745	1,640	46.4	5.23	1.594	Feb. 24	2400	2,170	61.5	6.11	1.862
Jan. 8	0830	1,610	45.6	5.18	1.579	Feb. 26	0430	2,810	79.6	7.19	2.192
Jan. 21	1545	2,780	78.7	7.14	2.176	May 23	2045	2,420	68.5	6.53	1.990
Jan. 24	2300	*5,390	153	*11.19	3.411	Sept. 6	1215	1,370	38.8	4.74	1.445
Feb. 24	0815	3,050	86.4	7.59	2.313	Sept. 22	0130	1,760	49.8	5.44	1.658

Minimum discharge, 36 ft³/s (1.02 m³/s) Oct. 3; minimum gage height, 1.93 ft (0.588 m) Sept. 1, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	45	94	220	214	343	105	100	172	78	78	43
2	38	45	69	1060	198	312	115	96	179	91	152	43
3	37	45	64	484	183	275	129	96	172	69	87	62
4	39	45	133	197	172	248	145	113	179	69	74	54
5	43	45	162	173	162	337	202	98	158	85	64	47
6	87	45	91	145	140	448	133	87	155	64	64	679
7	48	44	71	229	150	300	113	85	142	57	64	172
8	40	44	74	1260	145	239	108	83	133	54	59	96
9	39	43	542	368	130	214	152	76	120	54	57	78
10	38	43	255	241	122	210	312	74	115	51	57	69
11	38	40	117	182	110	436	142	73	145	54	113	67
12	38	40	97	211	100	234	129	71	133	50	230	62
13	37	40	89	191	100	206	123	83	105	48	190	59
14	43	42	84	227	100	202	248	98	98	257	96	69
15	48	43	75	164	100	199	183	85	91	155	83	94
16	42	48	73	171	100	169	145	73	87	87	71	62
17	66	55	74	119	90	165	133	67	85	356	66	56
18	56	118	71	110	86	155	123	71	85	103	71	53
19	47	66	68	100	80	152	113	145	78	123	91	51
20	45	48	66	260	98	145	105	136	73	76	69	48
21	44	40	152	2090	120	142	103	89	71	207	64	186
22	43	42	107	674	150	133	100	96	78	142	61	784
23	43	42	91	282	370	126	98	536	196	129	56	176
24	44	57	103	2210	1690	140	96	1540	87	165	59	113
25	45	50	610	1870	1720	162	98	620	76	103	69	96
26	47	43	159	597	1770	139	103	420	69	94	59	87
27	74	44	120	454	569	129	218	275	66	98	54	78
28	61	52	110	375	387	113	190	234	100	80	53	73
29	51	59	100	300	---	118	123	210	109	98	53	85
30	48	120	94	261	---	113	105	194	71	218	50	78
31	45	---	90	230	---	105	---	183	---	98	45	---
TOTAL	1452	1533	4095	15455	9356	6409	4188	6215	3425	3489	2459	3724
MEAN	46.8	51.1	132	499	334	207	140	200	114	113	79.3	124
MAX	87	120	610	2210	1770	448	312	1540	196	356	230	784
MIN	37	40	64	100	80	105	96	67	66	48	45	43
CFSM	.55	.60	1.54	5.84	3.91	2.42	1.64	2.34	1.33	1.32	.93	1.45
IN.	.63	.67	1.78	6.72	4.07	2.79	1.82	2.70	1.49	1.52	1.07	1.62

CAL YR 1978 TOTAL 55586 MEAN 152 MAX 2720 MIN 37 CFSM 1.78 IN 24.10
WTR YR 1979 TOTAL 61795 MEAN 169 MAX 2210 MIN 37 CFSM 1.98 IN 26.89

SCHUYLKILL RIVER BASIN

01471980 MANATAWNY CREEK NEAR POTTSTOWN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1979 to current year.

WATER-QUALITY DATA, SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)
SEP 06...	1300	1330	119	6.8	3	20	23	11	170	.00

DATE	PCB, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)
SEP 06...	.0	.00	.00	.0	.00	.00	.00	.00	.00

DATE	ENDRIN, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
SEP 06...	.00	.00	.00	.00	.00	.00	0	409	1470

01472000 SCHUYLKILL RIVER AT POTTSTOWN, PA

LOCATION.--Lat 40°14'30", long 75°39'07", Montgomery County, Hydrologic Unit 02040203, on right bank 75 ft upstream from Hanover Street bridge in Pottstown and 0.4 mi (0.6 km) downstream from Manatawny Creek. site at bridge 75 ft (23 m) downstream.

DRAINAGE AREA.--1,147 mi² (2,971 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1926 to current year. Monthly discharges only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 117.86 ft (35.924 m) National Geodetic Vertical Datum of 1929. October 1926 to Nov. 22, 1928 nonrecording gage and Nov. 23, 1928 to Dec. 26, 1972 recording gage, at site 100 ft (30 m) downstream at same datum. Dec. 27, 1972 to May 10, 1974 nonrecording gage 1.0 mi (1.6 km) downstream at datum 2.83 ft (0.863 m) lower.

REMARKS.--Records good. Some regulation at low flow by mill above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--53 years, 1,910 ft³/s (54.09 m³/s), 22.61 in/yr (574 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 95,900 ft³/s (2,720 m³/s) June 23, 1972, gage height, 29.97 ft (9.135 m), from floodmark, minimum, 87 ft³/s (2.46 m³/s) Aug. 13, 1930, gage height, 0.43 ft (0.131 m); minimum daily, 175 ft³/s (4.96 m³/s) Sept. 19, 1932.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to October 1926, 21.0 ft (6.40 m) Feb. 28, 1902, from floodmarks, discharge, 53,900 ft³/s (1,530 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 7,200 ft³/s (204 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 3	0630	12,100	343	8.45	2.576	Mar. 6	2115	11,600	329	8.23	2.509
Jan. 8	1715	14,200	402	9.27	2.825	May 24	0130	10,700	303	7.87	2.399
Jan. 22	0015	19,600	555	11.29	3.441	Sept. 6	2345	10,900	309	7.94	2.420
Jan. 25	0700	*43,000	1,220	*18.21	5.550	Sept. 22	0400	7,620	216	6.42	1.957
Feb. 26	1245	29,500	835	14.47	4.410						

Minimum discharge, 549 ft³/s (15.5 m³/s) Sept. 2, minimum gage height, 1.58 ft (0.482 m) Nov. 14, Sept. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	772	788	1210	2440	4390	6950	1940	2220	2480	1330	1130	582
2	772	780	1120	6550	3420	6280	1940	1960	2300	1130	1060	569
3	764	764	1080	11000	2880	5860	2060	1870	2170	948	1070	637
4	780	748	1370	6980	2570	5490	2320	2120	2300	933	941	651
5	836	764	1990	4950	2260	5820	3190	2120	2040	1030	836	616
6	1130	756	1710	4000	1900	10300	3470	1830	1950	925	772	6530
7	1220	741	1540	3720	2130	9770	3090	1670	1760	836	733	6570
8	908	741	1460	11400	2060	7370	2780	1580	1590	804	701	3270
9	836	741	3850	9360	1920	5880	2760	1550	1470	780	686	2320
10	812	733	5220	6240	1690	4910	4230	1510	1410	756	658	1840
11	788	725	3730	4860	1650	5670	3460	1500	1500	756	756	1550
12	772	725	2910	3880	1580	4980	3090	1520	1470	741	1370	1350
13	756	717	2480	3410	1610	4580	2930	1500	1270	709	1550	1180
14	933	709	2170	3650	1550	4020	3540	1710	1160	1100	1050	1140
15	1450	717	1930	3240	1610	3630	3810	1620	1100	1110	828	1550
16	1130	725	1750	2670	1630	3090	3270	1500	1060	795	756	1260
17	1150	764	1630	2400	1430	2840	3060	1420	1050	1270	694	1020
18	1060	1080	1500	2200	1290	2670	2810	1380	1020	974	679	949
19	958	1230	1390	1870	1200	2510	2560	1880	966	974	804	908
20	933	933	1300	1940	1350	2360	2370	1900	925	876	820	852
21	900	852	1640	10400	1510	2210	2220	1650	908	1280	709	1050
22	868	828	1730	15200	1690	2110	2120	1590	868	917	672	6550
23	836	820	1450	7110	1880	2020	2010	2710	1500	860	637	5040
24	828	900	1390	13600	7450	2080	1800	8340	1100	1030	630	3410
25	788	974	4390	37800	18400	2520	1900	6930	925	933	694	2740
26	780	892	3860	12300	24600	2380	1870	6280	852	804	796	2550
27	892	876	2960	9480	11200	2170	2300	5020	804	876	701	1900
28	933	908	2400	8200	7860	2050	3540	4200	844	780	651	1620
29	844	958	2050	6820	---	2010	2770	3620	1930	741	637	1580
30	812	1210	1890	5990	---	2010	2400	3380	1260	2200	616	1570
31	796	---	1810	5200	---	1930	---	3160	---	1530	603	---
TOTAL	28037	25099	66910	228860	114710	128470	81610	81240	41982	30729	25240	63354
MEAN	904	837	2158	7383	4097	4144	2720	2621	1399	991	814	2112
MAX	1450	1230	5220	37800	24600	10300	4230	8340	2480	2200	1550	6570
MIN	756	709	1080	1870	1200	1930	1800	1380	804	709	603	569
CFSM	.79	.73	1.88	6.44	3.57	3.61	2.37	2.29	1.22	.86	.71	1.84
IN.	.91	.81	2.17	7.42	3.72	4.17	2.65	2.63	1.36	1.00	.82	2.05

CAL YR 1978 TOTAL 862569 MEAN 2363 MAX 22000 MIN 701 CFSM 2.06 IN 27.98
WTR YR 1979 TOTAL 916241 MEAN 2510 MAX 37800 MIN 569 CFSM 2.19 IN 29.72

01472000 SCHUYLKILL RIVER AT POTTSTOWN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to current year.

WATER QUALITY DATA, WATER YEAR DECEMBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	NITRO-GEN,TOT IN BOT-TOM MA-TERIAL (MG/KG AS N)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ANTI-MONY, TOTAL (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)
DEC 19...	0935	--	335	7.5	3.0	6300	810	--	--	0	--	--
APR 19...	1000	2540	287	7.3	10.5	--	--	0	4	--	0	0
MAY 24...	1245	8140	210	7.3	16.5	--	--	1	3	--	0	0
SEP 06...	1145	7800	172	7.0	--	--	--	--	--	--	--	1
07...	0910	6780	195	6.8	--	--	--	--	--	--	--	3

DATE	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)
DEC 19...	--	--	<10	--	--	30	--	--	--	80	--
APR 19...	--	--	--	--	--	--	10	--	--	--	5
MAY 24...	--	--	--	--	--	--	30	--	--	--	30
SEP 06...	0	1	--	14	8	--	49	38	11	--	49
07...	3	0	--	8	2	--	27	22	5	--	29

DATE	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
DEC 19...	--	--	160	--	.17	--	--	--	--	--	--
APR 19...	--	--	--	.5	--	13	--	--	0	0	40
MAY 24...	--	--	--	<.5	--	30	--	--	0	0	110
SEP 06...	46	3	--	--	--	22	18	4	--	--	190
07...	28	1	--	--	--	27	22	5	--	--	190

DATE	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	PCB, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)
DEC 19...	--	--	290	4.6	32	--	--	--	--	--	--
APR 19...	--	--	--	--	--	.00	.0	.00	.00	.0	.00
MAY 24...	--	--	--	--	--	.00	.0	.00	.00	.0	.00
SEP 06...	40	150	--	--	--	.00	.1	.00	.00	.0	.00
07...	180	10	--	--	--	.00	.0	.00	.00	.0	.00

01472000 SCHUYLKILL RIVER AT POTTSTOWN, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)
DEC											
19...	--	--	--	--	--	--	--	--	--	--	--
APR											
19...	.00	.00	--	.00	.00	.00	.00	.00	.00	--	--
MAY											
24...	.00	.00	.09	.00	.00	.00	.00	.00	.00	.00	--
SEP											
06...	.00	.00	--	.00	.00	.00	.00	.00	.00	--	.00
07...	.00	.00	--	.00	.00	.00	.00	.00	.00	--	.00

DATE	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
DEC											
19...	--	--	--	--	--	--	--	--	--	--	--
APR											
19...	--	--	.00	--	0	--	.00	.00	.00	11	75
MAY											
24...	.00	.00	.00	.00	0	.00	.10	.05	.01	165	3630
SEP											
06...	--	--	.00	--	0	--	--	--	--	438	9140
07...	--	--	.00	--	0	--	--	--	--	143	2620

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA

LOCATION.--Lat 40°09'05", long 75° 36'06", Chester County, Hydrologic Unit 02040203, on right bank 70 ft (21 m) downstream from two-span county bridge on French Creek Road, 4.5 mi (7.2 km) northwest of Phoenixville, and 7.3 mi (11.7 km) upstream from mouth.

DRAINAGE AREA.--59.1 mi^2 (153.1 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 160 ft (49 m), from topographic map. Prior to Nov. 7, 1968, nonrecording gage at site 70 ft (21 m) upstream at same datum.

REMARKS.--Records good except for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years, 97.4 ft^3/s (2.758 m^3/s), 22.38 in/yr (568 mm/yr).

EXTREMES FOR PERIOD OF RECORD.-- Maximum discharge, 11,200 ft^3/s (317 m^3/s) June 22, 1972, gage height, 13.66 ft (4.164 m), from rating curve extended above 2,500 ft^3/s (70.8 m^3/s) on basis of slope-area measurement of peak flow; minimum, 11 ft^3/s (0.31 m^3/s) July 4, 5, 1969, gage height, 4.11 ft (1.253 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft^3/s (21.2 m^3/s) and maximum(*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage Height (ft)	Gage Height (m)
Dec, 9	1800	884	25.0	6.84	2.085	Feb. 24	1130	2,480	70.2	8.84	2.694
Dec. 25	0330	1,020	28.9	7.06	2.152	Feb. 24	0030	1,840	52.1	8.15	2.484
Jan. 2	1700	994	28.2	7.02	2.140	Feb. 26	0515	2,690	76.2	9.05	2.758
Jan. 8	0530	1,200	34.0	7.31	2.228	May 24	0500	776	22.0	6.66	2.030
Jan. 21	1500	2,270	64.3	8.62	2.627	Sept. 6	0715	1,240	35.1	7.37	2.246
Jan. 24	2100	*6,460	183	*11.74	3.578	Sept. 22	0315	2,230	63.2	8.58	2.615

Minimum discharge, 23 ft^3/s (0.65 m^3/s), Sept. 1, 4, gage height, 4.33 ft (1.320 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	36	99	176	155	299	86	74	107	67	34	24
2	30	35	68	626	140	289	97	69	137	57	67	24
3	30	34	59	362	125	252	108	69	168	50	50	24
4	31	34	172	134	121	216	119	84	201	49	35	24
5	34	34	192	125	103	253	148	75	137	56	30	25
6	208	34	96	114	103	319	100	66	116	46	28	775
7	59	34	72	156	103	253	85	62	106	42	26	125
8	41	34	75	927	100	227	82	60	97	40	25	54
9	35	33	596	268	96	205	130	58	87	38	25	40
10	34	33	298	165	92	187	217	55	83	37	24	35
11	33	33	118	152	86	327	112	53	117	38	26	33
12	32	33	92	155	81	198	102	52	96	37	159	31
13	31	33	85	160	77	160	105	62	80	36	112	29
14	48	33	79	210	74	158	243	91	70	96	45	33
15	45	35	72	144	74	141	159	75	64	87	36	61
16	36	45	68	116	72	126	121	57	64	44	32	34
17	88	54	70	103	70	126	105	51	64	39	29	30
18	53	142	65	100	65	123	94	90	64	43	30	28
19	42	68	62	102	63	117	86	233	60	53	40	28
20	40	52	59	148	80	108	82	134	56	38	32	26
21	38	47	124	1540	110	103	79	86	53	57	29	100
22	36	44	87	535	180	100	77	75	55	54	29	1250
23	35	43	67	240	271	97	76	94	93	41	27	175
24	35	54	85	2370	1090	137	72	505	61	39	27	89
25	35	48	592	1620	1280	146	73	281	55	35	30	71
26	35	42	141	366	1630	114	80	196	51	35	28	63
27	65	45	101	285	560	97	172	140	48	49	31	56
28	47	51	83	250	366	90	136	122	48	37	38	52
29	40	58	80	213	---	94	93	139	79	38	29	53
30	38	162	78	186	---	91	80	116	58	65	29	57
31	36	---	77	167	---	87	---	126	---	37	26	---
TOTAL	1417	1463	4012	12215	7367	5240	3319	3450	2575	1480	1208	3449
MEAN	45.7	48.8	129	394	263	169	111	111	85.8	47.7	39.0	115
MAX	208	162	596	2370	1630	327	243	505	201	96	159	1250
MIN	27	33	59	100	63	87	72	51	48	35	24	24
CFSM	.77	.83	2.18	6.67	4.45	2.86	1.88	1.88	1.45	.81	.66	1.95
IN.	.89	.92	2.53	7.69	4.64	3.30	2.09	2.17	1.62	.93	.76	2.17

CAL YR 1978 TOTAL 46106 MEAN 126 MAX 2050 MIN 26 CFSM 2.13 IN 29.02
WTR YR 1979 TOTAL 47195 MEAN 129 MAX 2370 MIN 24 CFSM 2.18 IN 29.71

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1969 to current year.

WATER-QUALITY DATA, OCTOBER 1978

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
OCT										
31...	1030	200	7.2	9.0	12.2	56	21	15	4.6	6.5

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT										
31...	2.1	43	0	35	4.3	14	8.8	.1	16	90

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)
OCT										
31...	88	1.2	.01	1.2	.02	.17	.19	1.4	.010	.01

DATE	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, DISSOLVED (UG/L AS ZN)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT										
31...	0	0	0	1	110	2	10	4	0	.00

01472174 PICKERING CREEK NEAR CHESTER SPRINGS, PA

LOCATION.--Lat 40°05'22", long 75°37'50", Chester County, Hydrologic Unit 02040203, on left bank 30 ft (9.1 m) downstream from bridge on Horseshoe Trail Road, 0.45 mi (0.72 km) downstream from unnamed tributary, and 0.75 mi (1.21 km) southwest of Chester Springs.

DRAINAGE AREA.--5.98 mi² (15.49 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1967 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 280 ft (85 m), from topographic map. Prior to Aug. 11, 1967, nonrecording gage at same site and datum.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--12 years, 10.9 ft³/s (0.309 m³/s), 24.68 in/yr (627 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,410 ft³/s (68.3 m³/s) June 22, 1972, gage height, 5.21 ft (1.588 m), from rating curve extended above 700 ft³/s (19.8 m³/s); minimum, 0.87 ft³/s (0.025 m³/s) Sept. 1, 2, 1969, gage height, 0.94 ft (0.287 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 220 ft³/s (6.23 m³/s) and maximum(*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Dec. 9	0815	311	8.81	4.44	1.353	June 3	1015	249	7.05	4.31	1.314
Jan. 21	unknown	509	14.4	unknown		Sept. 6	0430	267	7.56	4.35	1.326
Jan. 24	1830	819	23.2	4.89	1.490	Sept. 22	0215	*1,080	30.6	*4.98	1.518
Feb. 24	2330	544	15.4	4.72	1.439						

Minimum daily discharge, 2.7 ft³/s (0.076 m³/s) Aug. 9, 10, Sept. 4, 5, gage height, 1.68 ft (0.512 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	4.2	6.2	8.7	16	25	8.5	6.6	11	14	5.1	3.3
2	3.0	4.1	5.2	50	15	24	9.5	6.0	12	8.0	7.1	3.1
3	3.0	4.1	5.0	11	14	21	11	5.9	61	6.8	6.0	3.1
4	3.7	4.1	13	6.6	13	20	12	6.6	39	7.8	4.7	3.0
5	3.6	4.0	13	5.7	12	21	12	6.1	27	7.6	4.0	16
6	4.1	3.9	6.1	5.7	11	24	8.9	5.3	21	6.3	3.7	94
7	3.8	3.9	5.3	17	10	19	7.8	5.0	18	5.6	3.5	10
8	3.8	3.9	6.4	73	9.9	17	7.4	4.9	15	5.4	3.5	7.4
9	4.3	3.8	108	20	9.8	16	14	4.8	13	4.8	3.1	6.1
10	4.5	3.7	11	14	9.2	16	17	4.7	11	4.8	3.3	5.6
11	4.6	3.6	6.7	11	8.3	22	10	4.4	14	4.8	4.3	5.5
12	5.0	3.6	6.0	11	7.8	16	10	4.7	9.6	4.8	26	5.3
13	5.4	3.5	5.9	12	7.4	15	10	6.3	8.5	4.8	13	5.1
14	8.6	3.5	5.6	19	7.2	15	20	9.5	8.0	5.4	7.6	6.8
15	7.3	3.5	5.3	13	7.2	13	13	6.5	7.4	6.0	6.1	6.3
16	7.7	4.0	5.2	10	7.0	13	11	5.1	7.1	5.4	5.3	5.4
17	14	4.1	5.2	8.0	6.7	13	10	4.7	6.9	5.3	4.8	5.0
18	4.2	7.7	5.1	7.6	6.4	12	9.3	11	6.8	16	5.5	4.8
19	4.1	4.6	4.9	7.8	6.2	12	8.3	16	6.3	8.3	6.0	4.7
20	4.0	4.2	4.7	12	6.6	11	7.6	11	5.9	6.6	4.8	4.6
21	3.9	4.0	7.9	107	8.0	11	7.1	8.1	5.5	14	4.4	59
22	3.9	3.8	5.6	44	13	11	6.8	6.9	18	7.6	4.1	215
23	3.9	3.7	5.1	19	19	10	6.5	8.9	30	6.3	3.8	19
24	3.9	4.2	12	420	150	16	6.1	43	10	5.7	3.9	13
25	4.1	3.6	38	48	216	18	6.0	29	9.1	5.3	4.2	12
26	4.3	3.3	7.7	25	224	11	7.6	23	8.3	7.3	3.8	11
27	5.0	3.6	6.5	22	41	9.9	15	17	7.6	6.3	4.3	9.9
28	4.3	4.4	5.4	20	32	9.5	11	14	7.4	4.9	5.3	9.9
29	4.2	5.1	5.3	19	---	9.5	8.7	14	12	6.3	4.2	10
30	4.2	12	5.1	18	---	8.9	7.3	15	8.7	10	5.0	15
31	4.2	---	5.8	17	---	8.5	---	12	---	5.7	3.7	---
TOTAL	147.6	129.7	338.2	1082.1	893.7	468.3	299.4	326.0	425.1	218.1	174.1	578.9
MEAN	4.76	4.32	10.9	34.9	31.9	15.0	9.98	10.5	14.2	7.04	5.62	19.3
MAX	14	12	108	420	224	25	20	43	61	16	26	215
MIN	3.0	3.3	4.7	5.7	6.2	8.5	6.0	4.4	5.5	4.8	3.1	3.0
CFSM	.80	.72	1.82	5.84	5.33	2.51	1.67	1.76	2.38	1.18	.94	3.23
IN.	.92	.81	2.10	6.73	5.56	2.89	1.86	2.03	2.64	1.36	1.08	3.60

CAL YR 1978 TOTAL 5517.8 MEAN 15.1 MAX 500 MIN 2.6 CFSM 2.53 IN 34.32
WTR YR 1979 TOTAL 5077.2 MEAN 13.9 MAX 420 MIN 3.0 CFSM 2.32 IN 31.58

01472174 PICKERING CREEK NEAR CHESTER SPRINGS, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1970 to current year.

WATER-QUALITY DATA, OCTOBER 1978

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
OCT 30...	1330	230	7.3	10.0	11.6	72	27	20	5.3	6.5

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT 30...	2.2	55	0	45	4.4	14	14	.1	19	115

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)
OCT 30...	109	1.8	.01	1.8	.04	.39	.43	2.2	.070	.00

DATE	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, DISSOLVED (UG/L AS ZN)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT 30...	0	0	1	1	640	2	60	1	10	.00

01473000 PERKIOMEN CREEK AT GRATERFORD, PA

LOCATION.--Lat 40°13'46", long 75°27'07", Montgomery County, Hydrologic Unit 02040203, on left bank 1,650 ft (503 m) upstream from highway bridge at Graterford, 0.5 mi (0.8 km) upstream from Landis Brook and 2.5 mi (4.0 km) north of Collegeville.

DRAINAGE AREA.--279 mi² (723 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1914 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1950, published as "at Graters Ford".

REVISED RECORDS.--WSP 756: Drainage area. WSP 1171: 1935(M). WSP 1302: 1915-16, 1927-29. WSP 1382: 1932-33, 1935, 1937, 1942, 1947, 1948(M), 1949(P), 1950(M), 1951-52(P).

GAGE.--Water-stage recorder. Datum of gage is 112.66 ft (34.339 m) National Geodetic Vertical Datum of 1929. June 1914 to Sept. 6, 1921, nonrecording gage at site 1,650 ft (503 m) downstream at datum 3.29 ft (1.003 m) lower. Sept. 7, 1921 to Sept. 13, 1927, nonrecording gage at present site and datum.

REMARKS.--Records good. Some regulation by Green Lane Reservoir (station 01472200) 10.5 mi (16.9 km) upstream since December 21, 1956.

AVERAGE DISCHARGE.--65 years, 389 ft³/s (11.02 m³/s), 18.91 in/yr (480 mm/yr), adjusted for storage since December 1956.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,900 ft³/s (1,130 m³/s) July 9, 1935, gage height, 18.26 ft (5.566 m), from rating curve extended above 12,000 ft³/s (340 m³/s) on basis of slope-area measurement at gage height 16.23 ft (4.947 m); minimum, 4.7 ft³/s (0.13 m³/s) Oct. 5, 1941; minimum daily, 5.6 ft³/s (0.16 m³/s) Oct. 5, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 26,400 ft³/s (748 m³/s) Jan. 25, gage height, 14.79 ft (4.508 m); minimum, 55 ft³/s (1.56 m³/s) Sept. 3, gage height, 1.09 ft (0.332 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	92	470	1120	498	1290	270	290	404	285	131	65
2	64	91	285	6440	356	1150	270	250	410	410	119	59
3	70	87	245	3240	380	1030	320	245	642	197	131	57
4	72	90	861	825	310	812	470	280	920	145	102	63
5	75	85	1250	561	275	1200	900	260	603	185	85	209
6	210	84	610	428	275	2540	561	223	484	138	76	3510
7	151	81	340	512	285	1790	335	205	325	111	88	600
8	95	87	290	7110	290	994	280	197	275	97	80	250
9	79	87	4270	1810	290	728	440	189	245	90	67	200
10	78	87	2270	798	270	633	1510	177	232	85	65	170
11	80	78	784	547	270	2030	634	162	561	85	88	138
12	78	76	470	410	270	937	452	148	634	83	470	125
13	77	73	356	386	290	627	374	162	280	74	960	108
14	87	73	310	780	270	578	1380	241	227	92	265	105
15	130	73	255	589	245	519	1130	250	201	260	185	260
16	104	77	236	398	260	335	658	205	173	125	134	158
17	141	75	255	270	245	310	512	162	155	1010	105	111
18	156	184	236	270	225	300	386	148	155	214	97	100
19	110	189	205	270	210	275	305	540	145	218	138	95
20	103	118	177	386	250	280	280	666	125	145	128	80
21	98	101	807	9040	300	265	260	335	116	236	102	260
22	92	94	603	3010	400	241	245	270	114	236	105	9350
23	89	91	320	1070	829	232	241	807	362	158	90	1230
24	83	119	290	9140	4060	380	227	6930	218	148	85	557
25	85	139	3050	9130	7760	1570	218	3530	148	116	70	378
26	87	110	940	1500	10000	674	227	2180	122	111	78	304
27	176	100	554	1120	2560	410	900	1010	108	108	85	248
28	170	112	310	953	1530	305	1100	699	105	92	83	213
29	120	132	290	811	---	300	561	626	280	83	74	200
30	108	659	280	686	---	305	356	753	162	260	78	238
31	97	---	285	577	---	280	---	568	---	205	76	---
TOTAL	3230	3544	21824	64187	33203	23320	15802	22708	8931	5762	4440	19441
MEAN	104	118	704	2071	1186	752	527	733	298	186	143	648
MAX	210	659	4270	9140	10000	2540	1510	6930	920	1010	960	9350
MIN	64	73	177	270	210	232	218	148	105	74	65	57
MEAN≠	99.8	127	707	2070	1188	749	527	733	296	186	142	650
CFSM≠	.36	.46	2.53	7.42	4.26	2.69	1.89	2.63	1.06	.67	.51	2.33
IN≠	.41	.51	2.92	8.56	4.44	3.10	2.11	3.03	1.18	.77	.59	2.60

CAL YR 1978 TOTAL 187567 MEAN 514 MAX 14600 MIN 61 MEAN≠ 514 CFSM≠ 1.84 IN.≠ 25.01
WTR YR 1979 TOTAL 226392 MEAN 620 MAX 10000 MIN 57 MEAN≠ 621 CFSM≠ 2.22 IN.≠ 30.21

≠ Adjusted for change in contents in Green Lane Reservoir.

01473000 PERKIOMEN CREEK AT GRATERFORD, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to current year.

WATER QUALITY DATA,

WATER-QUALITY DATA, WATER YEAR DECEMBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
DEC 19...	1140	193	325	7.8	1.0	1	--	<10	20	--	20	--
SEP 06...	1625	4350	143	7.0	--	--	1	--	--	19	--	20

DATE	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCB, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)
DEC 19...	50	.00	--	--	100	--	--	--	--	--	--	--
SEP 06...	--	--	9	30	--	.00	.0	.00	.00	.0	.00	.00

DATE	DDT, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
DEC 19...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 06...	.00	.00	.00	.00	.00	.00	.00	.00	.00	0	144	1690

01473120 SKIPPACK CREEK NEAR COLLEGEVILLE, PA

LOCATION.--Lat 40°09'52", long 75°26'01", Montgomery County, Hydrologic Unit 02040203, on right bank 60 ft (18 m) downstream from two-span highway bridge, 1.5 mi (2.4 km) upstream from mouth, and 2 mi (3 km) southeast of Collegeville.

DRAINAGE AREA.--53.7 mi^2 (139.1 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 99.03 ft (30.184 m) National Geodetic Vertical Datum of 1929. Prior to June 15, 1967, nonrecording gage at site 60 ft (18 m) upstream at same datum.

REMARKS.--Records fair except those for winter periods, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years, 83.4 ft^3/s (2.362 m^3/s), 21.10 in/yr (536 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,400 ft^3/s (1,140 m^3/s) Sept. 13, 1971, gage height, 22.5 ft (6.86 m), from floodmark, from rating curve extended above 8,400 ft^3/s (238 m^3/s) on basis of slope-area measurement of peak flow; minimum, 0.1 ft^3/s (0.003 m^3/s) Sept. 12, 13, 1966; minimum gage height, 0.79 ft (0.241 m) Oct 3, 1968, July 31, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft^3/s (56.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage Height (ft)	Gage Height (m)
Dec. 9	1015	3,190	90.3	7.69	2.344	Feb. 25	0015	4,140	117	8.64	2.633
Jan. 2	1430	2,200	62.3	6.57	2.003	Feb. 26	0600	6,860	194	10.66	3.249
Jan. 8	0730	2,880	81.6	7.38	2.249	July 1	2200	2,530	71.6	6.99	2.131
Jan. 21	0600	4,180	118	8.67	2.643	July 17	0015	3,100	87.8	7.60	2.316
Jan. 24	2130	*7,910	224	*11.31	3.447	Sept. 6	1115	5,000	142	9.35	2.850
Feb. 24	1715	ice jam		8.12	2.475	Sept. 22	0345	7,750	219	11.22	3.420

Minimum daily discharge, 5.8 ft^3/s (0.16 m^3/s) Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	12	35	139	72	151	50	53	82	327	25	7.0
2	7.0	12	21	1380	67	139	50	49	72	128	12	7.2
3	6.0	12	17	380	62	122	80	47	114	41	8.6	7.8
4	5.8	12	93	125	58	109	130	52	181	27	39	7.2
5	6.4	12	155	113	54	163	200	44	114	33	15	6.5
6	20	12	56	65	50	606	130	40	89	20	12	1100
7	12	11	41	93	47	278	80	38	71	15	11	120
8	8.0	11	44	1750	44	149	54	35	64	13	11	69
9	7.5	11	1450	210	43	130	140	33	56	11	10	47
10	7.2	11	310	110	44	120	320	28	49	10	9.8	38
11	7.2	10	117	141	44	450	160	26	155	8.9	9.8	25
12	7.2	10	83	90	42	220	74	23	93	9.4	35	22
13	7.0	10	69	76	40	130	69	26	63	8.8	191	20
14	10	11	59	147	36	100	302	37	49	8.6	47	23
15	12	12	51	71	33	68	169	37	43	8.4	16	38
16	9.0	12	45	60	31	62	109	24	37	70	11	22
17	27	17	45	54	29	58	86	21	34	340	10	13
18	15	28	38	52	28	55	72	30	31	53	10	11
19	12	18	34	50	43	53	64	165	27	103	13	10
20	12	13	32	73	58	54	58	109	26	20	11	9.4
21	11	12	94	2460	88	45	52	66	26	9.0	9.0	194
22	11	10	58	237	288	44	47	55	24	9.0	7.8	2350
23	11	10	46	96	348	42	44	69	47	9.0	7.2	184
24	11	12	63	2670	1370	130	41	803	26	8.4	7.6	96
25	12	11	711	745	1910	350	40	332	24	8.2	8.2	69
26	14	10	123	181	2210	160	43	159	23	8.0	7.4	57
27	28	10	83	143	340	70	147	100	23	8.0	7.2	47
28	20	11	62	118	204	60	94	79	23	7.8	7.0	39
29	14	19	64	103	---	61	71	94	38	7.8	7.0	36
30	13	82	57	89	---	62	61	305	24	15	6.9	123
31	12	---	45	79	---	55	---	141	---	58	7.0	---
TOTAL	363.3	444	4201	12100	7683	4296	3037	3120	1728	1403.3	589.5	4794.1
MEAN	11.7	14.8	136	390	274	139	101	101	57.6	45.3	19.0	160
MAX	28	82	1450	2670	2210	606	320	803	181	340	191	2350
MIN	5.8	10	17	50	28	42	40	21	23	7.8	6.9	6.5
CFSM	.22	.28	2.53	7.26	5.10	2.59	1.88	1.88	1.07	.84	.35	2.98
IN.	.25	.31	2.91	8.38	5.32	2.98	2.10	2.16	1.20	.97	.41	3.32

CAL YR 1978 TOTAL 33097.8 MEAN 90.7 MAX 4160 MIN 5.6 CFSM 1.69 IN 22.93
WTR YR 1979 TOTAL 43759.2 MEAN 120 MAX 2670 MIN 5.8 CFSM 2.24 IN 30.31

01473120 SKIPPACK CREEK NEAR COLLEGEVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1973, December 1978 to current year.

WATER-QUALITY DATA, DECEMBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)
DEC 19...	1300	--	480	7.5	1.5	--	--	--	--	--	--
SEP 06...	1540	335	209	6.8	--	0	13	11	14	120	.00

DATE	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)
DEC 19...	--	0	--	--	.0	--	0	--	.0	--
SEP 06...	.0	--	.00	.00	--	.3	--	.00	--	.00

DATE	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
DEC 19...	.0	--	.0	--	.0	--	--	.0	--	.0
SEP 06...	--	.00	--	.00	--	.00	.00	--	.00	--

DATE	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
DEC 19...	--	.0	--	.0	--	--	--	0	--	--
SEP 06...	.00	--	.00	--	.00	.00	0	--	105	95

01473800 SCHUYLKILL RIVER AT MANAYUNK, PHILADELPHIA, PA

LOCATION.--Lat 40°01'41", long 75°13'44", Philadelphia County, Hydrologic Unit 02040203, at Green Lane Avenue Bridge, 5.5 mi (8.8 km) upstream from gaging station at Fairmount Dam, and 14.2 mi (22.3 km) upstream from mouth.

DRAINAGE AREA.--1,830 mi² (4,740 km²), at Fairmount Dam.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: November 1947 to current year.

REMARKS.--Mean discharge given are for 01474500 Schuylkill River at Philadelphia (Fairmount Dam). Daily records do not include water diverted by the city of Philadelphia for municipal water supply. Unpublished records of temperature of sediment samples available in the district office in Harrisburg.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 4,910 mg/L Dec. 30, 1948; minimum daily, 1 mg/L on many days.
SEDIMENT LOADS: Maximum daily, 650,000 tons (590,000 tonnes) (estimated) Aug. 19, 1955; minimum daily, less than 0.05 ton (0.04 tonne) Sept. 2, 1966.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 1,040 mg/L Jan. 25; minimum daily, 2 mg/L Dec. 20, June 17, 18
SEDIMENT LOADS: Maximum daily, 182,000 tons (166,000 tonnes) Jan. 25; minimum daily, 6.4 tons (5.8 tonnes) Apr. 15.

SEDIMENI DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	1310	22	78	1310	31	110	522	9	13
2	1350	20	73	1280	19	66	497	9	12
3	1350	50	182	1210	20	65	469	10	13
4	1350	32	117	1210	21	69	448	9	11
5	1350	28	102	1210	18	59	445	12	14
6	1310	22	78	1100	17	50	13500	480	17500
7	1240	24	80	1070	19	55	12600	235	7990
8	1210	17	56	1010	17	46	4010	32	346
9	1140	16	49	946	18	46	2330	17	107
10	1070	17	49	883	16	38	1660	16	72
11	1010	13	35	822	18	40	1320	15	53
12	946	12	31	822	20	44	1100	16	48
13	914	11	27	1140	37	114	1040	16	45
14	852	9	21	1420	30	115	1100	23	68
15	822	13	29	1380	22	82	1420	27	104
16	822	15	33	1170	21	66	1350	25	91
17	977	52	137	1070	20	58	946	18	46
18	1140	82	252	946	18	46	763	17	35
19	1140	48	148	883	17	41	706	18	34
20	1140	25	77	852	14	32	625	17	29
21	1070	22	64	822	14	31	670	21	38
22	1040	28	79	792	13	28	22500	618	45700
23	1040	24	67	734	12	24	9160	84	2080
24	1010	22	60	678	13	24	5010	28	379
25	1010	26	71	651	12	21	3160	14	119
26	977	19	50	625	11	19	2760	10	75
27	946	20	54	625	12	20	2380	11	71
28	946	20	51	625	10	17	1650	10	45
29	914	19	47	598	11	18	1490	8	32
30	914	25	62	572	10	15	3420	46	565
31	1210	42	137	567	12	18	---	---	---
TOTAL	33520	---	2393	29003	---	1477	99059	---	75735
YEAR	1276686		621313.0						

01473000 SCHUYLKILL RIVER AT MANAYUNK, PHILADELPHIA, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	734	15	30	651	5	8.8	2070	9	50
2	598	24	39	625	6	10	1610	8	35
3	572	20	31	598	6	9.7	1380	10	37
4	572	10	15	572	7	11	1850	11	55
5	598	12	19	547	6	8.9	4250	34	390
6	946	15	38	572	5	7.7	3470	22	206
7	1350	19	69	572	7	11	2470	14	93
8	1010	17	46	547	8	12	2150	7	41
9	734	14	28	572	8	12	11000	229	11200
10	678	16	29	547	8	12	13600	285	10500
11	625	30	51	530	9	13	6960	55	1020
12	598	41	66	510	10	14	4890	17	224
13	598	22	36	490	9	12	3960	11	118
14	598	14	23	490	8	11	3310	9	80
15	1070	30	87	490	8	11	2800	6	45
16	1310	21	74	517	13	18	2420	5	33
17	1310	11	39	600	10	16	2200	7	42
18	1240	9	30	1000	10	27	2020	8	44
19	1010	9	25	2000	11	59	1810	5	24
20	883	9	21	1240	12	40	1650	2	8.9
21	822	7	16	884	8	19	2070	5	28
22	763	5	10	760	7	14	3060	8	66
23	734	6	12	700	7	13	2290	6	37
24	651	4	7.0	791	6	13	1890	11	56
25	651	4	7.0	1000	6	16	9080	212	6030
26	625	4	6.8	850	6	14	6790	95	1740
27	734	7	14	791	3	6.4	4660	31	390
28	914	8	20	884	3	7.2	3500	17	164
29	822	8	18	1040	3	8.4	2850	10	77
30	706	9	17	1940	11	58	2420	8	52
31	678	7	13	---	---	---	2330	6	38
TOTAL	25134	---	936.8	23310	---	493.1	116790	---	32923.9

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	2760	10	75	6150	27	448	8830	82	1950
2	11000	199	9840	5020	26	352	7660	72	1490
3	18500	440	22000	4160	18	199	6450	51	888
4	10300	145	4030	3540	17	162	5480	39	577
5	7420	44	881	3190	19	164	5850	27	426
6	5830	24	378	2570	16	111	12400	148	6370
7	5310	20	287	2560	15	104	14700	138	5480
8	21100	271	19200	2430	14	92	9600	47	1220
9	15900	145	6220	2550	20	138	6860	27	500
10	8970	52	1260	2270	8	49	5010	19	257
11	6780	32	586	2000	7	38	6330	27	461
12	5350	15	216	1940	8	42	6070	22	361
13	4760	14	178	1690	10	46	5500	25	371
14	5260	17	241	1720	8	37	5560	18	270
15	5200	24	337	1810	7	34	4950	17	227
16	3920	15	159	2300	7	43	4070	15	165
17	3370	13	118	2200	7	42	3310	10	89
18	3020	15	122	2110	7	40	3060	12	99
19	2600	10	70	1500	7	30	2760	15	112
20	2540	10	69	1350	8	29	2610	15	106
21	22600	353	28600	1850	11	55	2470	12	80
22	25600	368	24900	2360	13	83	2200	10	59
23	10700	110	3100	2790	10	75	2070	11	61
24	15300	222	20300	8250	88	3760	2110	13	74
25	62100	1040	182000	32300	368	32400	4020	14	152
26	22900	250	15500	44300	563	61900	3690	34	339
27	10800	98	2860	22600	198	12100	2760	20	149
28	9570	88	2270	10400	98	2750	2330	11	69
29	8800	84	2000	---	---	---	2110	13	74
30	8060	64	1400	---	---	---	2110	13	74
31	6930	43	805	---	---	---	2070	12	67
TOTAL	353550	---	349962	178170	---	115523	154940	---	22607

01473800 SCHUYLKILL RIVER AT MANAYUNK, PHILADELPHIA, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	1900	11	58	2560	9	62	5620	14	212
2	1890	12	61	2420	8	52	5070	12	164
3	1950	11	55	2240	13	79	4660	14	176
4	2020	10	55	2110	9	51	4540	18	221
5	2330	12	75	2020	9	49	4360	14	165
6	2900	15	117	1980	10	53	4190	11	124
7	3160	14	119	1850	9	45	4020	9	98
8	3010	10	81	1730	7	33	3740	20	202
9	2900	10	76	1610	5	22	3520	9	86
10	3260	35	309	1490	4	16	3210	8	69
11	4020	23	250	1420	5	19	3060	7	58
12	3850	17	177	1350	6	22	3010	10	81
13	3630	12	118	1280	6	21	2900	7	55
14	3520	19	181	1240	8	27	2760	5	37
15	4250	36	413	1280	8	28	2610	3	21
16	4360	18	212	1240	6	20	2470	3	20
17	4190	14	158	1210	4	13	2290	2	12
18	3850	13	135	1170	4	13	2150	2	12
19	3520	14	133	1240	11	37	2020	4	22
20	3210	10	87	1570	17	72	1940	8	42
21	2900	11	86	1730	11	51	1810	8	39
22	2660	9	65	1690	8	37	1690	9	41
23	2520	8	54	1610	6	26	1610	9	39
24	2330	8	50	3420	485	4820	1610	10	43
25	2150	10	58	6730	135	2450	1570	9	38
26	2020	9	49	8080	115	2510	1490	11	48
27	2070	14	78	8360	52	1170	1460	16	63
28	2330	13	82	7730	27	564	1380	15	56
29	2610	9	63	7050	18	343	1310	16	57
30	2610	11	78	6530	23	406	1310	17	60
31	---	---	---	6130	28	463	---	---	---
TOTAL	87760	---	3532	92070	---	13574	83380	---	2357

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	NITRO-GEN,TOT IN BOT-TOM MA-TERIAL (MG/KG AS N)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ANTI-MONY, TOTAL (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)
DEC												
18...	1200	--	335	7.6	4.0	1200	230	--	--	0	--	--
APR												
18...	1715	5000	275	7.3	11.0	--	--	0	3	--	0	0
MAY												
24...	1630	22900	180	6.1	17.5	--	--	1	3	--	0	1
SEP												
06...	1530	21500	219	6.8	26.5	--	--	--	--	--	--	4

DATE	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)
DEC												
18...	--	--	<10	--	--	20	--	--	--	20	--	--
APR												
18...	--	--	--	--	--	--	5	--	--	--	6	--
MAY												
24...	--	--	--	--	--	--	66	--	--	--	64	--
SEP												
06...	3	1	--	23	5	--	40	22	26	--	83	35

01473800 SCHUYLKILL RIVER AT MANAYUNK, PHILADELPHIA, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)
DEC 10...	--	170	--	.00	--	--	--	--	--	--	--
APR 10...	--	--	.5	--	13	--	--	0	0	60	--
MAY 24...	--	--	<.5	--	43	--	--	1	0	290	--
SEP 06...	40	--	--	--	30	15	15	--	--	520	270

DATE	ZINC, DIS-SOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)
DEC 10...	--	170	4.0	16	--	--	0	--	--	.0	--
APR 10...	--	--	--	--	.00	.0	--	.00	.00	--	.0
MAY 24...	--	--	--	--	.00	.0	--	.00	.00	--	.0
SEP 06...	250	--	--	--	.10	.0	--	.00	.00	--	.0

DATE	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL (UG/L)
DEC 10...	16	--	5.6	--	1.7	--	9.0	--	--	.0	--
APR 10...	--	.00	--	.00	--	.00	--	--	.00	--	.00
MAY 24...	--	.00	--	.00	--	.00	--	.03	.00	--	.00
SEP 06...	--	.00	--	.00	--	.00	--	--	.00	--	.00

DATE	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)
DEC 10...	--	.0	--	.0	--	.0	--	.0	--	--	--
APR 10...	.00	--	.00	--	.00	--	.00	--	--	--	--
MAY 24...	.00	--	.00	--	.00	--	.00	--	.00	--	.00
SEP 06...	.00	--	.00	--	.00	--	.00	--	--	.00	--

DATE	METHYL TRI-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
DEC 10...	--	--	--	--	0	--	--	--	--	--	--
APR 10...	--	.00	--	0	--	--	.00	.00	.00	11	151
MAY 24...	.00	.00	.00	0	--	.00	.29	.05	.00	459	27600
SEP 06...	--	.00	--	0	--	--	--	--	--	1970	114000

01473800 SCHUYLKILL RIVER AT MANAYUNK, PHILADELPHIA, PA--Continued

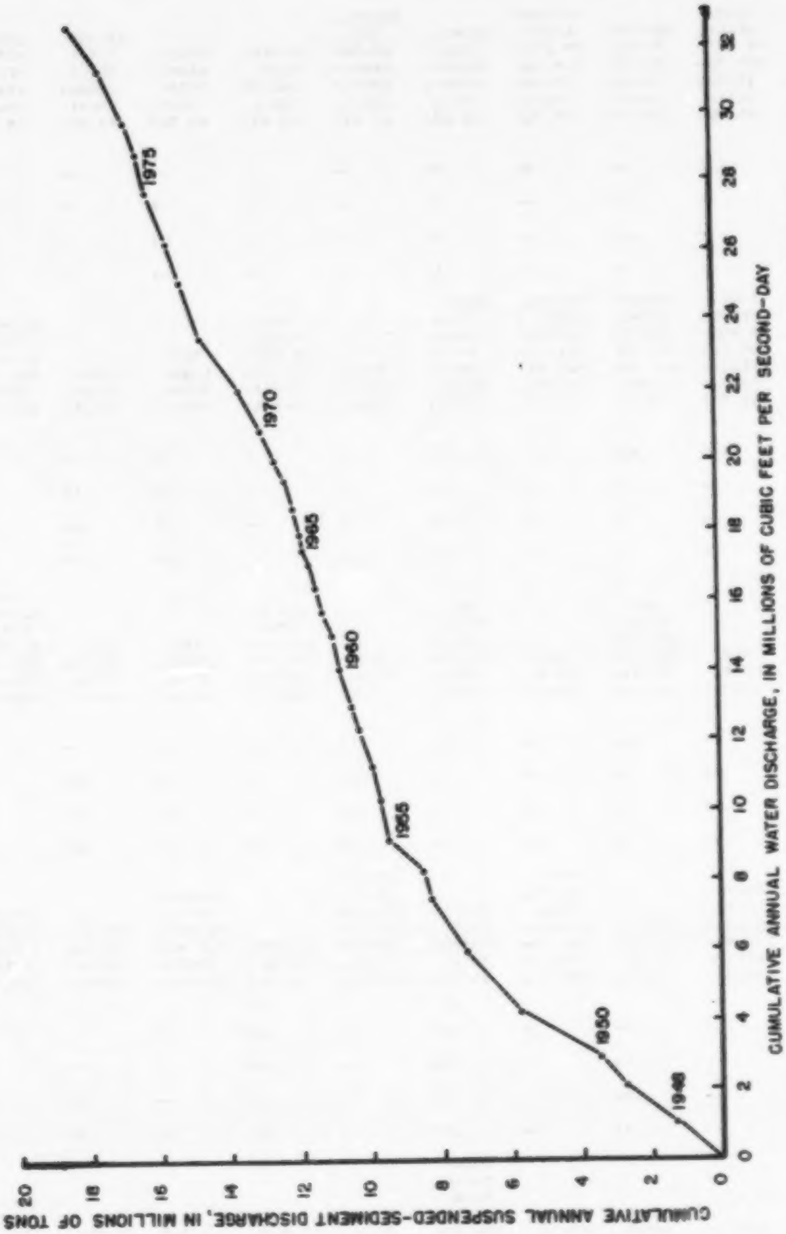

FIGURE 11-Double mass accumulation of annual suspended-sediment discharge versus annual water discharge, Schuylkill River at Manayunk, Philadelphia, Pa.

Table 2.--Suspended sediment concentration-duration table. Schuylkill River at Manayunk, Philadelphia, PA

Period	Mean daily concentration, in milligrams per liter that was equaled or exceeded for indicated percentage of time													
	1	2	5	10	20	30	40	50	60	70	80	90	95	99
1979	470	330	145	60	27	20	17	14	12	10	9	7	5	3
1960-79	440	280	120	54	27	20	17	14	12	10	8	6	5	3

01473950 WISSAHICKON CREEK AT BELLS MILL ROAD, PHILADELPHIA, PA

LOCATION.--Lat 40°04'50", long 75°13'35", Philadelphia County, Hydrologic Unit 02040203, on left bank 300 ft (91 m) upstream from Bells Mill Road, 0.5 mi (0.8 km) south of Mt. St. Joseph College in Philadelphia.

DRAINAGE AREA.--53.6 mi² (139 km²).

WATER-DISCHARGE RECORD

PERIOD OF RECORD.--October 1965 to September 1970, May 1974 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 108.58 ft (33.095 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for period of no gage-height record Feb. 5 to Mar. 21, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years (Water years 1966-70, 1975-79), 77.4 ft³/s (2.192 m³/s), 19.60 in/yr (498 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,830 ft³/s (137 m³/s) Jan. 25, 1979, gage height, 10.11 ft (3.082 m); minimum, 5.4 ft³/s (0.15 m³/s) July 27, 1966, gage height, 2.81 ft (0.856 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1973 reached a stage of 12.66 ft (3.859 m), from floodmarks, discharge, 8,100 ft³/s (229 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Dec. 9	1330	2,010	56.9	7.15	2.179	May 19	1345	1,070	30.3	5.77	1.759
Dec. 25	0545	1,460	41.3	6.38	1.945	May 24	unknown	1,860	52.7	unknown	
Jan. 2	unknown	1,270	36.0	unknown		June 11	1700	1,110	31.4	5.83	1.777
Jan. 8	unknown	1,950	55.2	unknown		July 17	0100	1,100	31.2	5.81	1.771
Jan. 21	1000	3,550	101	8.89	2.710	July 30	0600	1,770	50.1	6.83	2.082
Jan. 25	0130	*4,830	137	*10.11	3.082	Sept. 6	1130	3,710	105	9.05	2.758
Feb. 25	unknown	2,830	80.1	unknown		Sept. 22	0645	2,870	81.3	8.18	2.493
Feb. 26	unknown	1,730	49.0	unknown		Sept. 30	unknown	1,600	45.3	unknown	
Mar. 6	unknown	1,450	41.1	unknown							

Minimum discharge, 8.8 ft³/s (0.25 m³/s) Oct. 12; minimum gage height, 2.96 ft (0.902 m) Oct. 12, Nov. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	15	30	80	96	200	59	69	83	69	59	31
2	17	16	20	650	79	170	61	63	79	51	56	28
3	11	15	15	300	73	150	65	63	167	38	115	45
4	20	16	60	100	71	130	69	69	223	50	167	27
5	15	19	133	70	65	150	101	65	115	56	59	22
6	19	15	31	60	62	600	65	61	88	38	55	1360
7	15	17	28	150	60	250	63	58	77	33	47	103
8	15	16	38	1200	60	150	59	56	69	28	41	67
9	14	15	1060	175	56	120	101	51	67	27	37	61
10	15	14	193	101	54	110	219	50	63	27	41	58
11	14	14	63	79	55	250	73	50	416	25	56	51
12	11	15	47	69	58	130	71	59	134	24	255	42
13	11	18	41	81	60	110	69	61	93	45	145	41
14	20	25	30	148	55	100	287	67	75	58	59	93
15	20	28	31	73	55	90	131	63	71	51	51	96
16	19	30	31	63	52	85	88	51	67	80	42	58
17	45	31	35	61	50	80	77	42	69	219	41	56
18	27	70	29	59	50	75	71	77	67	86	56	51
19	21	28	30	55	50	72	67	398	65	73	63	58
20	14	20	29	65	55	70	65	156	63	42	42	55
21	18	22	76	2160	65	67	65	75	63	56	51	83
22	20	18	38	227	90	65	63	67	67	42	42	1070
23	17	21	31	106	150	63	61	200	103	35	38	100
24	20	32	73	1180	900	195	61	1200	59	63	42	70
25	17	28	571	1319	1600	131	61	400	56	47	41	55
26	16	18	100	219	1300	73	101	187	56	63	35	50
27	35	19	50	175	500	67	335	140	51	59	28	40
28	20	32	40	145	250	63	121	128	45	35	35	45
29	17	38	35	131	---	65	86	125	63	37	37	70
30	15	109	30	115	---	63	71	112	51	655	35	500
31	13	---	45	104	---	63	---	96	---	67	28	---
TOTAL	593	757	3063	9511	6071	4007	2886	4367	2755	2287	1899	4498
MEAN	19.1	25.2	98.8	307	217	129	96.2	141	91.8	73.8	61.3	150
MAX	45	109	1060	2160	1600	600	335	1200	416	655	255	1360
MIN	11	14	15	55	50	63	59	42	45	24	28	22
CFSM	.36	.47	1.84	5.73	4.05	2.41	1.80	2.63	1.71	1.38	1.14	2.80
IN.	.41	.53	2.13	6.60	4.21	2.78	2.00	3.03	1.91	1.59	1.32	3.12

CAL YR 1978 TOTAL 36298 MEAN 99.4 MAX 2290 MIN 10 CFSM 1.85 IN 25.19
WTR YR 1979 TOTAL 42690 MEAN 117 MAX 2160 MIN 11 CFSM 2.18 IN 29.63

01473950 WISSAHICKON CREEK AT BELLS MILL ROAD, PHILADELPHIA, PA

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1979 to current year.

WATER-QUALITY DATA, DECEMBER 1979

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)
DEC 18...	1425	675	7.7	4.0	0	<10	10	<10	70	.00	40

SCHUYLKILL RIVER BASIN

01474000 WISSAHICKON CREEK AT MOUTH, PHILADELPHIA, PA

LOCATION.--Lat 40°00'54", long 75°12'24", Philadelphia County, Hydrologic Unit 02040203, on left bank 100 ft (30 m) upstream from dam at Ridge Ave., 750 ft (229 m) upstream from mouth, 1,000 ft (305 m) northwest of Gustine Lake in Philadelphia.

DRAINAGE AREA.--64.0 mi² (165.8 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1897 to September 1903, January 1905 to July 1906, October 1965 to September 1970, May 1974 to current year. Prior to October 1965 published as "near Philadelphia".

REVISED RECORDS.--WSP 1302: 1905.

GAGE.--Water-stage recorder, concrete control, and crest-stage gage. Datum of gage is 26.41 ft (8.050 m) National Geodetic Vertical Datum of 1929. Prior to October 1965, water-stage recorder at about same site and datum.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years (Water years 1898, 1966-70, 1975-79), 95.3 ft³/s (2.699 m³/s), 20.23 in/yr (514 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,890 ft³/s (138 m³/s) Jan. 25, 1979, gage height, 6.81 ft (2.076 m); minimum daily observed, 2.0 ft³/s (0.057 m³/s) July 18, 19, 1905.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1973 reached a stage of 7.92 ft (2.414 m), discharge, 6,870 ft³/s (195 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s (34.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 9	1415	2,470	70.0	5.13	1.564	May 19	1515	1,270	36.0	4.05	1.234
Dec. 25	0645	1,660	47.0	4.43	1.350	May 24	0715	2,190	62.0	4.90	1.494
Jan. 2	1745	1,480	41.9	4.26	1.298	June 11	1830	1,290	36.5	4.07	1.241
Jan. 8	0615	2,290	64.9	4.98	1.518	July 16	2130	1,260	35.7	4.04	1.231
Jan. 21	1130	3,920	111	6.19	1.887	July 30	0715	2,080	58.9	4.81	1.466
Jan. 25	0200	*4,890	138	*6.81	2.076	Sept. 6	1215	4,020	114	6.26	1.908
Feb. 25	0415	3,240	91.8	5.72	1.743	Sept. 22	0745	3,250	92.0	5.73	1.747
Feb. 26	0200	2,040	57.8	4.77	1.454	Sept. 30	1115	1,880	53.2	4.63	1.411
Mar. 6	1745	1,700	48.1	4.46	1.359						

Minimum discharge, 19 ft³/s (0.54 m³/s) Nov. 7, gage height, 1.85 ft (0.564 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	25	42	102	120	248	88	99	120	92	73	43
2	40	23	36	805	107	221	95	90	114	50	79	52
3	29	24	31	407	100	196	109	89	195	48	82	52
4	33	24	88	118	96	167	121	98	256	48	270	43
5	36	24	158	94	89	176	158	93	154	58	70	41
6	36	23	44	87	84	783	108	82	123	42	59	1690
7	33	26	38	173	84	380	87	76	111	41	57	131
8	32	25	41	1500	83	205	82	72	96	40	49	87
9	31	24	1300	230	77	167	145	70	93	39	49	77
10	32	24	292	136	77	152	268	68	81	39	59	71
11	31	24	89	110	79	330	103	66	510	38	70	66
12	26	26	68	97	84	166	101	78	167	38	298	60
13	25	23	57	122	90	142	96	82	97	38	206	58
14	31	28	56	181	84	137	348	93	84	66	68	113
15	34	31	47	108	84	122	168	84	78	53	56	139
16	34	40	46	81	82	112	118	62	72	135	53	53
17	78	41	51	80	73	108	107	55	75	309	47	50
18	41	102	47	73	75	105	102	129	72	105	62	48
19	35	40	47	62	75	100	93	468	64	95	79	49
20	28	34	44	94	83	99	86	219	60	47	49	46
21	28	33	101	2640	94	96	87	103	55	62	52	75
22	32	34	57	317	153	91	84	90	93	50	51	1310
23	30	31	45	151	144	85	80	273	131	44	46	154
24	23	41	79	1250	1020	242	79	1420	59	89	49	91
25	26	34	715	1600	1940	172	79	732	50	60	51	76
26	23	30	104	271	1610	107	142	249	49	70	47	68
27	41	33	72	221	462	95	412	183	46	77	41	63
28	36	44	61	184	301	89	167	177	43	47	48	62
29	26	57	51	158	---	94	120	160	69	42	44	94
30	24	133	47	139	---	93	102	155	49	761	51	703
31	25	---	58	129	---	92	---	131	---	108	41	---
TOTAL	1054	1101	4012	11720	7450	5372	3935	5846	3266	2823	2356	5665
MEAN	34.0	36.7	129	378	266	173	131	189	109	91.1	76.0	189
MAX	78	133	1300	2640	1940	783	412	1420	510	761	298	1690
MIN	23	23	31	62	73	85	79	55	43	38	41	41
CFSM	.53	.57	2.02	5.91	4.16	2.70	2.05	2.95	1.70	1.42	1.19	2.95
IN.	.61	.64	2.33	6.81	4.33	3.12	2.29	3.40	1.90	1.64	1.37	3.29

CAL YR 1978 TOTAL 43669 MEAN 120 MAX 2830 MIN 23 CFSM 1.88 IN 25.38
WTR YR 1979 TOTAL 54600 MEAN 150 MAX 2640 MIN 23 CFSM 2.34 IN 31.74

01474000 WISSAHICKON CREEK AT MOUTH, PHILADELPHIA, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1975 to current year.

WATER-QUALITY DATA, DECEMBER 1978

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	NITRO-GEN,TOT IN BOT-TOM MA-TERIAL (MG/KG AS N)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
DEC 18...	1335	625	7.7	3.5	1400	340	0	<10	10

DATE	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
DEC 18...	20	90	.10	90	1.6	13	93	.0	71

DATE	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
DEC 18...	8.3	9.2	11	4.9	.0	.0	.0	.0	0

SCHUYLKILL RIVER BASIN

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA

LOCATION.--Lat 39°58'08", long 75°11'20", Philadelphia County, Hydrologic Unit 02040203, on right bank 150 ft (46 m) upstream from Fairmount Dam, 1,500 ft (457 m) upstream from Spring Garden Street Bridge, in Philadelphia, and 8.7 mi (14.0 km) upstream from mouth. Water-quality sampling site 1.6 mi (2.6 km) upstream.

DRAINAGE AREA.--1,893 mi^2 (4,903 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1931 to current year. Records for January 1898 to December 1912, published in WSP 35, 48, 65, 82, 97, 125, 166, 202, 241, 261, 281, 301, 381, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1936(M), WSP 1432: 1945. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5.74 ft (1.750 m) National Geodetic Vertical Datum of 1929. Prior to Nov.25, 1956, water-stage recorder at site on right bank just upstream from Fairmount Dam at same datum. Nov. 26, 1956 to Oct. 6, 1966, water-stage recorder at site on left bank 40 ft (12 m) upstream from Fairmount Dam at same datum.

REMARKS.--Records good. Some regulation by reservoirs above station. Records of daily discharge do not include diversion above station by city of Philadelphia for municipal water supply.

AVERAGE DISCHARGE.--48 years, 2,967 ft^3/s (84.03 m^3/s), 21.28 in/yr (541 mm/yr), adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103,000 ft^3/s (2,920 m^3/s) June 23, 1972, gage height, 14.65 ft (4.465 m); no flow over dam at times; minimum daily, 0.6 ft^3/s (0.02 m^3/s) Sept. 2, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 4, 1869, reached a stage of 17.0 ft (5.18 m), discharge, 135,000 ft^3/s (3,820 m^3/s), from rating extended above 46,000 ft^3/s (1,300 m^3s). Flood of Mar. 1, 1902, reached a stage of 14.8 ft (4.511 m), discharge, 98,000 ft^3/s (2,780 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 18,000 ft^3/s (510 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 9	2215	21,200	600	8.88	2.707	Feb. 26	1100	52,300	1,480	11.54	3.517
Jan. 3	0130	26,200	742	9.38	2.859	Mar. 6	2230	18,600	527	8.59	2.618
Jan. 8	1515	30,400	861	9.78	2.981	Sept. 7	unknown	21,500	609	unknown	
Jan. 21	2130	36,800	1,040	10.35	3.155	Sept. 22	1245	35,400	1,000	10.23	3.118
Jan. 25	1000	*74,100	2,100	*12.97	3.953						

Minimum discharge, 427 ft^3/s (12.1 m^3/s) Sept. 5, minimum gage height, 5.86 ft (1.786 m) Nov. 13, 14, 15, 16, 17.

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	734	651	2070	2760	6150	8830	1940	2560	5620	1310	1310	522
2	596	625	1610	11400	5020	7600	1890	2420	5070	1350	1280	497
3	572	598	1380	18500	4100	6450	1850	2240	4660	1350	1210	469
4	572	572	1850	10300	3540	5480	2020	2110	4540	1350	1210	448
5	598	547	4250	7420	3190	5850	2330	2020	4360	1350	1210	445
6	946	572	3470	5830	2570	12400	2900	1980	4190	1310	1100	13500
7	1350	572	2470	5310	2560	14700	3160	1850	4020	1240	1070	12600
8	1010	547	2150	21100	2630	9600	3010	1730	3740	1210	1010	4010
9	734	572	11000	15900	2550	6860	2800	1610	3520	1140	946	2330
10	678	547	13600	8970	2270	5010	3260	1490	3210	1070	883	1660
11	625	530	6860	6780	2000	6330	4020	1420	3060	1010	822	1320
12	598	510	4890	5330	1940	6070	3850	1350	3010	946	822	1100
13	598	490	3960	4700	1690	5500	3630	1280	2900	914	1140	1040
14	598	490	3310	5260	1720	5560	3520	1240	2760	852	1420	1100
15	1070	490	2800	5200	1810	4950	4250	1280	2610	822	1380	1420
16	1310	517	2420	3920	2300	4070	4360	1240	2470	822	1170	1350
17	1310	600	2200	3370	2240	3310	4190	1210	2290	977	1070	946
18	1240	1000	2020	3020	2110	3060	3850	1170	2150	1140	946	763
19	1010	2000	1610	2600	1580	2760	3520	1240	2020	1140	883	706
20	883	1240	1650	2540	1350	2610	3210	1570	1940	1140	852	625
21	822	884	2070	22600	1850	2470	2900	1730	1810	1070	822	678
22	763	760	3060	25600	2360	2200	2660	1690	1690	1040	792	22500
23	734	700	2290	10700	2790	2070	2520	1610	1610	1040	734	9160
24	651	791	1890	15300	8250	2110	2330	3420	1610	1010	678	5010
25	651	1000	9080	62100	32300	4020	2150	6730	1570	1010	651	3160
26	625	850	6790	22900	44300	3690	2020	8080	1490	977	625	2760
27	734	791	4660	10800	22600	2760	2070	8360	1460	946	625	2380
28	914	884	3580	9570	10400	2330	2330	7730	1380	946	625	1650
29	822	1040	2850	8800	---	2110	2610	7050	1310	914	598	1490
30	706	1940	2420	8040	---	2110	2610	6530	1310	914	572	3420
31	678	---	2330	6930	---	2070	---	6130	---	1210	547	---
TOTAL	25134	23310	116790	353550	178170	154940	87760	92070	83380	33520	29003	99059
MEAN	811	777	3767	11400	6363	4998	2925	2970	2779	1081	936	3302
MAX	1350	2000	13600	62100	44300	14700	4360	8360	5620	1350	1420	22500
MIN	572	490	1380	2540	1350	2070	1850	1170	1310	822	547	445
≠	255	250	252	257	271	263	247	238	238	289	290	269
MEAN≠	1066	1027	4019	11660	6634	5261	3172	3208	3017	1370	1226	3571
CFSM≠	.56	.54	2.12	6.16	3.50	2.78	1.68	1.69	1.59	.72	.65	1.89
IN≠	.65	.61	2.45	7.10	3.65	3.20	1.87	1.95	1.78	.83	.75	2.10

CAL YR 1978 TOTAL 1309873 MEAN 3589 MAX 46400 MIN 490 MEAN≠ 3863 CFSM≠ 2.04 IN≠ 27.71
WTR YR 1979 TOTAL 1276686 MEAN 3498 MAX 62100 MIN 445 MEAN≠ 3758 CFSM≠ 1.99 IN≠ 26.95

≠ Diversion, equivalent in cubic feet per second, for municipal water supply, furnished by City of Philadelphia.

≠ Adjusted for diversion.

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1945 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: January 1968 to current year.
WATER TEMPERATURES: October 1945 to current year.
DISSOLVED OXYGEN: January 1966 to current year.

REMARKS.--Water-quality recorder located at Belmont raw-water pumping station on west side of river near Columbia Bridge.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 972 micromhos June 25, 1965; minimum, 92 micromhos Feb. 26, 1979.
pH: Maximum, 10.1 Aug. 12, 1969; minimum, 5.7 Dec. 21, 1973.
WATER TEMPERATURES: Maximum, 31.5°C July 10, 1974, Aug. 22, 1978; minimum, freezing point on many days during winter months.
DISSOLVED OXYGEN: Maximum, 18.3 mg/L Jan. 11, 1978; minimum, 0.4 mg/L July 24, 1971.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 569 micromhos Oct 5-6; minimum, 92 micromhos Feb. 26.
pH: Maximum, 9.0 June 20, July 9-10; minimum, 6.3 July 18-19.
WATER TEMPERATURES: Maximum, 30.0°C Aug. 6; minimum, 1.0°C Feb. 14, 18.
DISSOLVED OXYGEN: Maximum, 14.7 mg/L June 16; minimum, 4.0 mg/L July 25.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L) (00335)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV										
08...	0700	517	--	7.3	13.5	8.6	20	--	--	--
DEC										
18...	1100	2070	320	7.6	4.0	--	--	--	--	--
26...	1315	6590	205	7.1	4.0	12.8	--	86	--	--
JAN										
03...	1200	17800	166	6.9	6.0	11.2	--	58	--	--
MAR										
28...	1130	2330	272	7.1	9.5	11.2	--	--	80	51
APR										
18...	1615	3800	275	6.6	12.0	--	--	--	--	--
MAY										
24...	1300	3800	331	6.7	19.0	5.0	--	--	210	21
JUN										
26...	1400	1500	417	8.2	23.0	13.1	--	--	80	--
JUL										
26...	1000	1010	344	6.8	26.5	4.8	--	--	E20000	4400
AUG										
30...	0800	571	414	7.2	26.5	5.2	--	--	13478	4000
SEP										
27...	1000	3010	248	7.0	19.5	5.7	--	--	1650	9350

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM+POTAS-SIUM DIS-SOLVED (MG/L AS NA) (00933)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)
NOV										
08...	170	88	41	17	26	--	4.0	100	0	82
DEC										
18...	--	--	--	--	--	--	--	--	--	--
26...	78	40	20	6.8	9.4	--	3.0	46	0	38
JAN										
03...	72	43	18	6.5	7.4	--	4.2	35	0	29
MAR										
28...	110	61	28	10	15	--	2.3	60	0	49
APR										
18...	--	--	--	--	--	--	--	--	--	--
MAY										
24...	140	82	37	12	19	--	2.9	71	0	58
JUN										
26...	170	100	45	13	21	24	3.2	85	0	70
JUL										
26...	150	77	37	13	23	27	3.6	89	0	73
AUG										
30...	170	87	42	15	31	35	3.8	101	0	83
SEP										
27...	110	54	28	9.4	13	16	3.1	68	0	56

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)
NOV 08...	8.0	82	34	.2	6.7	298	260	2.9	--	.64
DEC 18...	--	--	--	--	--	--	--	--	--	--
26...	5.8	35	16	.1	7.5	140	120	2.0	--	.30
JAN 03...	7.0	28	11	.1	7.3	129	103	1.8	--	.17
MAR 28...	7.6	52	21	.1	9.3	185	167	2.3	--	.20
APR 18...	--	--	--	--	--	--	--	--	--	--
MAY 24...	23	62	34	.9	7.9	221	211	1.7	--	1.0
JUN 26...	.9	70	30	.2	2.3	288	227	2.1	--	.02
JUL 26...	23	69	32	.2	8.8	272	231	2.3	--	.02
AUG 30...	9.1	75	36	.2	4.5	293	257	2.4	--	.17
SEP 27...	11	45	16	.1	10	176	171	--	2.8	--

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, TOT IN BOT- TOM MA- TERIAL (MG/KG AS N) (00603)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
NOV 08...	--	.30	--	.94	.15	.79	3.8	--	--	.500
DEC 18...	--	--	--	--	--	--	--	--	17000	--
26...	--	.90	--	1.2	.10	1.1	3.2	--	--	.290
JAN 03...	--	--	--	--	.00	4.6	--	--	--	.510
MAR 28...	--	.34	--	.54	.00	.83	2.8	--	--	.190
APR 18...	--	--	--	--	--	--	--	--	--	--
MAY 24...	--	.30	--	1.3	.00	1.4	3.0	--	--	.330
JUN 26...	--	.98	--	1.0	--	--	3.1	--	--	.280
JUL 26...	--	.89	--	.91	.00	.91	3.2	--	--	.450
AUG 30...	--	.93	--	1.1	.12	.98	3.5	--	--	.450
SEP 27...	.41	--	2.0	--	.00	2.4	--	5.2	--	.290

DATE	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CAPBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C) (00686)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C) (00693)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML) (60050)	OIL AND GREASE, TOTAL RECOV. GRAVI- METRIC (MG/L) (00556)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70958)
NOV 08...	.430	--	5.4	--	--	--	--	--	.270	.050
DEC 18...	--	1300	--	--	1.0	47	--	--	--	--
26...	.250	--	5.6	--	--	--	--	0	--	--
JAN 03...	.490	--	--	7.2	--	--	--	1	--	--
MAR 28...	.130	--	4.4	--	--	--	4900	--	--	--
APR 18...	--	--	--	--	2.0	92	--	--	--	--
MAY 24...	.130	--	5.1	--	--	--	170	--	--	--
JUN 26...	.090	--	6.1	--	--	--	77000	--	--	--
JUL 26...	.490	--	--	4.9	--	--	20000	--	--	--
AUG 30...	.340	--	5.2	--	--	--	42000	--	--	--
SEP 27...	.290	--	4.6	--	--	--	12000	--	--	--

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA) (01006)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01013)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD) (01026)
DEC 18...	1100	--	1	6	--	--	--	--	--	--
JAN 03...	1200	3	2	--	100	0	100	--	3	1
APR 18...	1615	--	--	0	--	--	--	0	--	--
JUL 26...	1000	2	2	--	0	0	50	--	--	--
AUG 15...	1600	--	--	--	--	--	--	--	3	--

DATE	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR) (01031)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO) (01036)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)
DEC 18...	2	<10	--	--	0	50	--	--	--	--
JAN 03...	2	--	20	18	2	--	9	4	5	48
APR 18...	--	10	--	--	--	30	--	--	--	--
JUL 26...	1	--	--	--	10	--	--	[illegible]	1	--
AUG 15...	--	--	10	--	--	--	--	--	--	20

DATE	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU) (01041)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE) (01044)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB) (01050)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)
DEC 18...	--	4	80	--	--	--	--	--	1	100
JAN 03...	28	20	--	2300	300	2000	89	56	33	--
APR 18...	--	--	50	--	--	--	--	--	--	120
JUL 26...	--	9	--	340	280	60	--	--	4	--
AUG 15...	--	--	--	--	--	--	5	--	--	--

DATE	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN) (01054)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI) (01068)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE) (01146)
DEC 18...	--	--	--	--	--	<.5	.12	--	--	--
JAN 03...	890	230	660	<.5	.0	<.5	--	--	1	1
APR 18...	--	--	--	--	--	--	.00	40	--	--
JUL 26...	160	140	20	<.5	<.0	<.5	--	--	0	0
AUG 15...	--	--	--	--	--	--	--	--	--	--

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G) (01148)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG) (01076)	SILVER, DISSOLVED (UG/L AS AG) (01075)	SILVER, RECOV. FM BOTTOM MATERIAL (UG/G AS AG) (01078)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN) (01091)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
DEC 18...	--	--	--	--	--	--	--	--	0	170
JAN 03...	0	--	0	0	0	--	240	120	120	--
APR 18...	--	0	--	--	--	10	--	--	--	550
JUL 26...	0	--	--	--	0	--	90	70	20	--
AUG 15...	--	--	--	--	--	--	30	--	--	--

DATE	TIME	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)
DEC 18...	1100	.0	240	.00	.00	.0	.0	74	.00	12	.00
APR 18...	1615	--	870	--	--	.0	--	300	--	110	--
AUG 15...	1600	.0	--	.00	.00	--	.0	--	.00	--	.00

DATE	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
DEC 18...	.0	.00	7.4	.00	5.8	.00	.00	.0	.00	.0
APR 18...	71	--	180	--	21	--	--	.0	--	.0
AUG 15...	--	.00	--	.00	--	.00	.00	--	.00	--

DATE	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
DEC 18...	.00	.0	.00	.0	.00	--	.00	.00	0	0
APR 18...	--	.0	--	.0	--	.0	--	--	--	0
AUG 15...	.00	--	.00	--	.00	--	.00	.00	0	--

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1978 TO SEPTEMBER 1979

DATE	MAR 28.79	MAY 24.79	JUN 26.79	JUL 24.79	AUG 30.79	SEP 27.79
TIME	1130	1300	1400	1000	0800	1000
TOTAL CELLS/ML	4900	170	77000	20000	42000	12000
DIVERSITY: DIVISION	0.4	0.0	1.1	0.8	0.9	1.5
.CLASS	0.4	0.0	1.1	0.8	0.9	1.5
..ORDER	1.2	0.0	1.2	0.8	1.1	1.9
...FAMILY	1.6	1.0	1.7	1.3	1.9	2.4
....GENUS	1.7	1.0	1.8	1.9	2.9	2.4

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHLOROCOCCACEAE												
....CHLOROCOCCUM	--	-	--	-	--	-	--	-	540	1	--	-
...COELASTRACEAE												
....COELASTRUM	--	-	--	-	--	-	--	-	3300	8	900	8
...HYDRODICTYACEAE												
....PEDIASTRUM	--	-	--	-	--	-	--	-	--	-	1800#	15
...MICRACTINIACEAE												
....MICRACTINIUM	--	-	--	-	6500	8	--	-	--	-	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	160	3	64#	38	*	0	760	4	2200	5	--	-
....CHLORELLA	--	-	--	-	--	-	9800#	49	8200#	19	--	-
....CHODATELLA	--	-	--	-	--	-	2100	11	5700	14	90	1
....DICTYOSPHAERIUM	--	-	--	-	1400	2	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	720	1	--	-	3300	8	--	-
....SELENASTRUM	--	-	--	-	*	0	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-	540	1	--	-
....TREUBARIA	--	-	--	-	2200	3	--	-	--	-	--	-
...SCENEDESMACEAE												
....SCENEDESMUS	--	-	100#	62	15000#	20	2300	11	3800	9	360	3
..TETRASPORALES												
...COCCOMYXACEAE												
....ELAKATOTHRIX	--	-	--	-	--	-	--	-	540	1	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	200	4	--	-	--	-	--	-	--	-	180	2
..ZYGNEMATALES												
...DESMIDIACEAE												
....STAURASTRUM	--	-	--	-	*	0	--	-	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	3500#	72	--	-	47000#	61	5000#	25	13000#	31	540	5
..PENNALES												
...ACHNANTHACEAE												
....RHOICOSPHENIA	79	2	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE												
....ASTERIONELLA	200	4	--	-	--	-	--	-	--	-	180	2
....FRAGILARIA	--	-	--	-	--	-	--	-	--	-	360	3
....SYNEDRA	39	1	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE												
....NAVICULA	390	8	--	-	--	-	--	-	--	-	90	1
...NITZSCHIACEAE												
....NITZSCHIA	200	4	--	-	--	-	--	-	1100	3	90	1
...SURIRELLACEAE												
....SURIRELLA	79	2	--	-	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONADALES												
...CRYPTOCHRYSIDACEAE												
....CHROOMONAS	--	-	--	-	--	-	--	-	--	-	270	2
...CRYPTOMONADACEAE												
....CRYPTOMONAS	--	-	--	-	--	-	--	-	--	-	180	2
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	--	-	--	-	2900	4	--	-	--	-	360	3
..HORMOGONALES												
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	--	-	--	-	--	-	6300#	54
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....TRACHELOMONAS	39	1	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	515	397	481	434	410	429	446	405	422	287	278	283
2	507	398	451	441	411	436	410	402	407	285	188	249
3	465	399	431	449	432	441	410	375	392	200	164	178
4	542	438	504	449	437	443	377	369	373	199	189	193
5	569	498	538	441	421	433	383	338	369	202	190	195
6	569	509	544	427	419	426	338	314	323	225	201	216
7	517	491	508	431	421	426	324	308	314	291	216	255
8	544	485	511	441	428	435	340	323	330	266	158	217
9	519	449	475	449	437	444	343	214	301	189	158	173
10	494	472	478	454	444	451	220	198	205	199	190	193
11	524	462	495	481	456	470	260	220	248	217	199	207
12	548	526	541	492	478	485	261	254	257	253	218	229
13	568	541	552	491	484	488	257	242	250	298	245	272
14	552	523	531	487	480	483	256	246	251	316	268	292
15	525	470	500	483	476	480	268	256	262	338	286	309
16	483	440	456	484	470	479	276	261	270	287	271	280
17	440	374	402	484	474	479	287	270	277	337	275	304
18	429	376	410	484	469	476	293	285	288	347	330	336
19	384	350	368	489	463	480	303	293	298	351	345	347
20	354	310	336	468	455	460	312	300	307	460	340	368
21	335	324	330	468	454	460	312	302	307	469	156	282
22	331	317	325	495	460	482	322	310	317	184	152	164
23	321	300	309	497	484	491	326	316	322	197	186	193
24	304	280	291	484	465	474	342	319	333	210	146	197
25	---	---	---	494	477	488	317	224	275	143	112	128
26	---	---	---	496	489	492	222	205	212	177	129	153
27	---	---	---	514	494	501	268	226	256	190	177	184
28	---	---	---	524	507	514	275	260	267	187	179	183
29	---	---	---	509	479	494	280	273	276	190	182	186
30	---	---	---	477	447	459	280	274	278	204	189	194
31	421	405	416	---	---	---	284	275	279	239	205	221
MONTH	569	280	447	524	418	467	446	198	299	469	112	232

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	261	239	251	188	177	180	339	334	336	281	261	266
2	282	262	274	198	189	193	339	332	335	268	261	265
3	293	282	289	209	197	203	344	336	339	275	257	265
4	304	292	299	221	209	213	343	330	337	306	266	291
5	318	293	310	230	221	226	334	330	332	310	301	306
6	332	319	325	232	208	224	335	317	326	304	276	294
7	338	327	332	216	188	198	316	303	310	307	271	277
8	351	328	337	198	190	192	305	293	299	289	276	283
9	368	349	358	212	197	204	297	283	291	292	281	287
10	365	357	361	228	214	220	290	260	278	301	291	295
11	368	359	364	236	225	231	266	257	260	313	301	306
12	382	366	375	227	218	223	276	260	268	324	312	317
13	380	367	374	235	225	230	287	276	281	335	323	327
14	386	370	377	247	233	241	287	271	278	336	323	329
15	384	374	379	258	238	250	269	249	256	---	---	---
16	401	381	390	269	256	261	259	250	255	---	---	---
17	400	387	394	278	268	272	260	254	258	---	---	---
18	419	395	403	279	273	277	261	250	256	---	---	---
19	419	409	412	286	279	282	277	250	266	---	---	---
20	439	420	426	294	286	289	280	268	276	---	---	---
21	465	428	439	311	287	299	291	274	284	---	---	---
22	507	445	468	311	305	308	298	269	277	350	344	346
23	484	448	464	315	304	309	289	261	273	348	339	343
24	470	381	429	324	312	317	274	244	263	343	330	336
25	289	153	187	314	281	301	271	249	260	335	320	328
26	151	92	111	279	264	269	272	245	262	---	---	---
27	152	100	127	287	276	[illegible]	276	238	261	---	---	---
28	179	152	165	312	281	[illegible]	292	246	273	---	---	---
29	---	---	---	334	311	321	290	238	268	---	---	---
30	---	---	---	341	331	336	276	259	268	---	---	---
31	---	---	---	337	329	333	---	---	---	---	---	---
MONTH	507	92	336	341	177	257	344	238	284	350	257	303

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	403	365	388	406	377	392	418	385	403
2	---	---	---	364	340	352	405	381	387	420	392	405
3	---	---	---	380	332	365	416	388	406	414	400	409
4	269	258	261	357	309	331	402	352	379	447	411	431
5	265	260	263	383	358	375	355	335	349	472	447	462
6	276	264	271	371	354	362	384	355	371	465	242	347
7	292	274	285	363	351	356	400	385	392	318	164	237
8	309	289	299	384	362	376	412	400	406	303	201	249
9	314	301	307	388	376	382	411	391	404	217	201	208
10	313	307	310	381	367	372	420	398	411	225	210	217
11	316	291	306	391	371	380	418	400	410	247	225	237
12	347	297	324	429	389	417	400	371	385	258	245	249
13	348	326	335	439	423	432	386	336	356	272	258	265
14	349	329	336	432	421	425	339	299	319	287	274	278
15	370	348	360	441	420	432	300	283	293	300	273	288
16	390	370	376	438	367	424	304	291	299	309	288	295
17	406	392	399	402	321	369	326	300	310	323	308	314
18	409	391	401	339	273	305	361	325	347	331	324	327
19	424	392	414	323	274	295	387	361	374	338	333	336
20	424	417	421	368	328	356	393	382	387	342	332	337
21	418	382	402	359	338	347	392	378	384	344	337	340
22	416	381	406	402	355	380	399	383	390	335	125	185
23	413	399	408	414	383	404	400	390	394	227	144	178
24	399	390	394	397	383	391	407	393	401	245	225	239
25	405	365	381	389	324	367	398	380	391	240	230	234
26	406	378	390	349	324	339	395	375	387	240	230	234
27	381	365	373	387	343	367	400	385	393	251	239	245
28	382	362	369	389	365	379	401	390	395	265	251	258
29	396	381	389	397	364	379	418	398	409	266	255	260
30	386	374	381	450	318	383	423	406	415	267	211	232
31	---	---	---	437	357	385	423	395	411	---	---	---
MONTH	424	258	354	450	273	375	423	283	379	472	125	290

PH (UNITS), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.3	7.6	7.9	7.4	7.3	7.3	7.3	7.2	7.3	7.2	7.2	7.2
2	8.1	7.4	7.7	7.4	7.2	7.3	7.3	7.2	7.3	7.3	7.0	7.2
3	7.9	7.4	7.6	7.3	7.2	7.3	7.2	7.2	7.2	7.0	6.9	6.9
4	7.6	7.4	7.5	7.3	7.2	7.2	7.2	7.2	7.2	7.0	7.0	7.0
5	7.5	7.3	7.4	7.3	7.2	7.2	7.2	7.2	7.2	7.0	7.0	7.0
6	7.5	7.3	7.4	7.3	7.2	7.2	7.2	7.1	7.1	7.0	7.0	7.0
7	7.4	7.4	7.4	7.4	7.2	7.3	7.1	7.1	7.1	7.1	7.0	7.0
8	7.5	7.4	7.5	7.3	7.3	7.3	7.2	7.0	7.1	7.1	6.7	6.9
9	7.5	7.4	7.4	7.3	7.2	7.3	7.1	6.9	7.1	6.9	6.7	6.8
10	7.5	7.3	7.4	7.3	7.2	7.3	6.9	6.8	6.8	6.9	6.8	6.9
11	7.6	7.3	7.4	7.3	7.2	7.3	7.1	6.9	7.0	7.0	6.9	7.0
12	7.7	7.4	7.5	7.4	7.2	7.3	7.1	7.1	7.1	7.1	7.0	7.0
13	8.4	8.0	8.2	7.3	7.2	7.3	7.1	7.0	7.1	7.1	7.0	7.1
14	8.3	7.8	8.0	7.3	7.2	7.3	7.1	7.1	7.1	7.1	7.1	7.1
15	8.5	7.7	8.1	7.3	7.3	7.3	7.2	7.1	7.1	7.1	7.1	7.1
16	7.9	7.5	7.6	7.3	7.0	7.2	7.2	7.1	7.2	7.1	7.1	7.1
17	7.7	7.4	7.6	7.2	7.1	7.2	7.2	7.1	7.2	7.1	7.1	7.1
18	7.6	7.4	7.5	7.2	7.1	7.2	7.2	7.2	7.2	7.2	7.1	7.1
19	7.6	7.4	7.5	7.2	7.1	7.2	7.2	7.2	7.2	7.2	7.2	7.2
20	7.6	7.4	7.5	7.3	7.2	7.2	7.2	7.2	7.2	7.2	7.1	7.2
21	7.8	7.4	7.5	7.3	7.3	7.3	7.2	7.2	7.2	7.2	6.7	6.9
22	7.7	7.3	7.5	7.3	7.1	7.2	7.2	7.2	7.2	6.9	6.6	6.7
23	7.6	7.3	7.4	7.2	7.1	7.1	7.2	7.2	7.2	6.9	6.8	6.9
24	7.6	7.3	7.4	7.2	7.1	7.1	7.2	7.1	7.2	7.0	6.8	6.9
25	7.4	7.3	7.3	7.3	7.1	7.2	7.2	7.0	7.1	6.7	6.6	6.6
26	7.3	7.2	7.3	7.3	7.2	7.2	7.1	6.9	7.0	6.7	6.6	6.6
27	7.3	7.2	7.2	7.3	7.2	7.2	7.1	7.0	7.1	6.8	6.7	6.7
28	7.4	7.2	7.3	7.3	7.2	7.2	7.2	7.1	7.1	6.8	6.8	6.8
29	7.4	7.2	7.3	7.3	7.2	7.3	7.2	7.2	7.2	6.9	6.8	6.9
30	7.4	7.3	7.3	7.3	7.2	7.3	7.2	7.2	7.2	7.0	6.9	6.9
31	7.4	7.3	7.4	---	---	---	7.2	7.2	7.2	7.0	6.8	6.9
MONTH	8.5	7.2	7.5	7.4	7.0	7.2	7.3	6.8	7.2	7.3	6.6	7.0

SCHUYLKILL RIVER BASIN

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.0	6.9	7.0	6.8	6.8	6.8	7.3	7.2	7.2	7.4	7.1	7.2
2	7.1	7.0	7.1	6.8	6.8	6.8	7.3	7.2	7.2	7.3	7.1	7.2
3	7.1	7.1	7.1	6.9	6.8	6.9	7.2	7.1	7.2	7.4	7.1	7.2
4	7.1	7.1	7.1	6.9	6.9	6.9	7.3	6.8	7.1	7.5	7.1	7.3
5	7.2	7.1	7.1	7.0	6.9	6.9	7.0	6.6	6.8	7.6	7.2	7.4
6	7.2	7.1	7.1	7.0	6.9	7.0	7.3	6.6	7.0	7.7	7.2	7.4
7	7.1	7.1	7.1	6.9	6.8	6.9	7.3	7.2	7.2	7.8	7.1	7.5
8	7.1	7.1	7.1	6.9	6.8	6.8	7.2	7.1	7.2	7.9	7.2	7.5
9	7.1	7.0	7.1	6.9	6.9	6.9	7.2	7.1	7.1	8.1	7.2	7.5
10	7.1	7.1	7.1	6.9	6.9	6.9	7.1	7.1	7.1	7.8	7.1	7.4
11	7.1	7.1	7.1	7.0	6.9	7.0	7.1	7.0	7.0	7.8	7.0	7.4
12	7.1	7.1	7.1	7.0	6.9	7.0	7.1	7.0	7.1	7.3	7.0	7.1
13	7.1	7.1	7.1	7.0	7.0	7.0	7.3	7.1	7.2	7.1	6.9	6.9
14	7.2	7.1	7.2	7.1	7.0	7.0	7.2	7.1	7.1	7.1	6.8	6.9
15	7.2	7.1	7.2	7.1	6.9	7.1	7.1	7.1	7.1	---	---	---
16	7.2	7.1	7.1	7.1	7.1	7.1	7.3	7.1	7.2	---	---	---
17	7.2	7.1	7.2	7.1	7.1	7.1	7.3	7.1	7.2	---	---	---
18	7.2	7.2	7.2	7.1	7.1	7.1	7.3	7.2	7.2	---	---	---
19	7.2	7.1	7.1	7.1	7.1	7.1	7.3	7.2	7.2	---	---	---
20	7.1	7.1	7.1	7.1	7.1	7.1	7.3	7.2	7.2	---	---	---
21	7.2	7.1	7.2	7.2	7.0	7.1	7.4	7.2	7.3	---	---	---
22	7.2	7.1	7.2	7.2	7.1	7.2	7.4	7.2	7.3	6.7	6.7	6.7
23	7.2	7.2	7.2	7.2	7.1	7.2	7.7	7.2	7.4	6.8	6.7	6.7
24	7.2	7.0	7.1	7.2	7.1	7.2	7.7	7.3	7.5	7.0	6.7	6.8
25	7.0	6.7	6.8	7.2	7.1	7.1	7.7	7.3	7.5	6.9	6.9	6.9
26	6.7	6.5	6.6	7.1	7.0	7.1	7.8	7.3	7.5	---	---	---
27	6.6	6.5	6.5	7.2	7.1	7.1	7.4	7.2	7.3	---	---	---
28	6.8	6.6	6.7	7.3	7.1	7.2	7.4	7.2	7.3	---	---	---
29	---	---	---	7.3	6.9	7.2	7.3	7.1	7.2	---	---	---
30	---	---	---	7.2	7.2	7.2	7.3	7.1	7.2	---	---	---
31	---	---	---	7.3	7.1	7.2	---	---	---	---	---	---
MONTH	7.2	6.5	7.1	7.3	6.8	7.0	7.8	6.6	7.2	8.1	6.7	7.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	8.4	7.2	7.7
2	---	---	---	---	---	---	8.2	7.1	7.7	7.6	7.1	7.2
3	---	---	---	---	---	---	7.8	7.0	7.4	7.1	6.9	7.0
4	7.4	7.3	7.4	---	---	---	7.7	7.1	7.3	7.1	6.8	6.9
5	7.4	7.3	7.4	7.7	7.0	7.4	7.8	6.9	7.3	8.4	6.8	7.6
6	7.4	7.3	7.4	8.7	7.3	8.0	7.8	7.1	7.3	7.7	6.8	7.2
7	7.6	7.4	7.4	8.9	8.2	8.6	8.0	7.0	7.5	6.9	6.8	6.8
8	7.7	7.3	7.5	8.8	8.3	8.5	8.0	7.0	7.4	6.9	6.7	[illegible]
9	7.8	7.4	7.6	9.0	8.2	8.6	---	---	---	7.0	6.9	6.9
10	8.1	7.4	7.7	9.0	8.7	8.9	8.5	7.9	8.3	7.1	6.9	7.0
11	7.7	7.4	7.5	8.9	8.5	8.7	8.2	7.3	7.8	7.1	7.0	7.0
12	7.7	7.3	7.5	8.8	8.5	8.7	7.3	7.0	7.1	7.2	7.0	7.1
13	7.6	7.4	7.5	8.8	8.3	8.5	7.1	7.0	7.0	7.3	7.0	7.1
14	8.2	7.3	7.7	8.4	7.6	8.1	7.0	6.9	7.0	7.2	7.0	7.1
15	8.7	7.4	8.1	8.0	7.1	7.5	7.1	6.9	7.0	7.2	7.0	7.1
16	8.8	7.7	8.3	8.2	7.2	7.6	7.2	7.0	7.1	7.1	6.9	7.0
17	8.7	8.0	8.3	7.7	6.7	7.0	7.4	7.0	7.2	7.3	7.0	7.1
18	8.8	7.8	8.3	6.7	6.3	6.5	7.1	7.0	7.0	7.2	7.1	7.1
19	8.9	8.4	8.7	7.0	6.3	6.6	7.5	7.0	7.1	7.2	7.1	7.1
20	9.0	8.4	8.7	8.1	6.8	7.3	7.5	7.0	7.2	7.1	7.0	7.1
21	8.9	8.4	8.7	7.5	6.8	7.0	7.4	6.9	7.2	7.0	6.9	7.0
22	8.8	8.1	8.4	8.0	6.9	7.3	7.9	7.0	7.4	6.9	6.5	6.7
23	8.5	7.7	8.0	8.1	7.0	7.4	8.2	7.2	7.7	6.9	6.5	6.7
24	7.9	7.3	7.6	7.5	6.9	7.1	7.8	7.3	7.5	7.1	6.9	7.0
25	8.0	7.3	7.6	7.1	6.7	6.9	8.0	7.2	7.6	7.2	7.1	7.2
26	8.5	7.8	8.1	7.4	6.6	7.0	7.9	7.2	7.5	7.2	7.1	7.1
27	8.5	8.0	8.2	7.8	7.0	7.3	8.5	7.0	7.8	7.3	7.0	7.1
28	8.2	7.5	7.8	8.2	7.2	7.7	8.8	7.8	8.3	7.4	7.0	7.2
29	8.3	7.5	7.9	---	---	---	8.5	7.7	8.0	7.2	7.0	7.1
30	8.2	7.4	7.9	---	---	---	8.1	7.3	7.7	7.2	6.9	7.0
31	---	---	---	---	---	---	8.3	7.2	7.8	---	---	---
MONTH	9.0	7.3	7.9	9.0	6.3	7.7	8.8	6.9	7.5	8.4	6.5	7.1

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.0	19.5	20.5	15.5	14.0	14.5	8.0	7.0	7.5	5.5	4.0	4.5
2	21.0	19.5	20.5	15.0	13.5	14.5	7.5	7.0	7.5	8.0	5.5	6.5
3	20.5	18.5	19.5	15.0	13.0	14.0	7.5	6.5	7.0	8.0	4.5	6.0
4	19.5	19.0	19.5	14.0	13.5	14.0	9.0	7.5	8.5	4.5	2.5	3.5
5	19.5	19.0	19.5	14.5	13.5	14.0	9.5	8.5	9.0	3.0	2.5	2.5
6	20.5	19.0	19.5	14.5	13.5	14.0	9.5	8.5	9.0	3.0	2.0	2.5
7	19.5	19.0	19.0	15.0	13.5	14.5	9.0	8.5	8.5	3.5	2.5	3.0
8	18.5	18.0	18.0	14.5	14.0	14.0	9.5	8.5	9.0	4.0	3.0	3.5
9	18.0	17.0	17.5	14.0	13.0	14.0	10.5	9.0	10.0	3.0	2.5	3.0
10	17.5	16.0	17.0	14.5	13.0	13.5	9.0	6.5	8.0	2.5	2.0	2.5
11	18.5	16.5	17.5	14.0	13.0	13.5	6.5	5.5	6.0	2.5	2.0	2.0
12	18.0	17.0	17.0	13.5	13.0	13.0	5.5	5.0	5.0	2.0	2.0	2.0
13	19.0	18.5	18.5	13.0	12.5	12.5	5.5	4.5	5.0	2.5	2.0	2.0
14	19.0	18.0	18.5	13.5	12.5	13.0	5.0	4.5	5.0	3.5	2.5	3.0
15	18.0	17.0	17.5	14.0	13.5	13.5	5.5	4.5	5.0	3.0	2.5	2.5
16	17.5	16.5	17.0	13.5	12.5	13.0	6.0	5.0	5.5	3.5	2.5	3.0
17	17.0	16.0	16.5	13.0	12.5	13.0	6.0	5.0	5.5	3.0	2.5	2.5
18	16.5	15.0	15.5	14.5	13.0	14.0	5.5	5.0	5.0	3.0	2.0	2.5
19	15.5	15.0	15.0	14.0	13.0	13.5	5.0	4.5	4.5	2.0	1.5	2.0
20	15.5	15.0	15.0	13.5	12.5	13.0	4.5	4.0	4.5	2.0	1.5	1.5
21	15.5	14.0	15.0	13.0	11.0	12.0	5.5	4.5	5.0	2.5	1.5	2.0
22	16.0	14.5	15.5	11.0	10.5	10.5	5.5	5.0	5.0	3.0	2.0	2.5
23	17.0	15.5	16.0	10.5	10.0	10.0	5.5	4.5	5.0	3.5	3.0	3.0
24	16.0	15.0	15.5	11.0	10.0	10.5	5.5	4.5	5.0	5.0	3.5	4.0
25	15.5	14.0	15.0	10.0	9.5	9.5	5.5	5.0	5.5	4.0	3.0	3.0
26	15.5	15.0	15.0	9.5	8.0	8.5	5.0	4.0	4.5	4.0	3.0	3.5
27	16.0	15.0	15.5	8.0	6.5	7.0	4.0	3.0	3.5	4.5	4.0	4.5
28	16.0	14.5	15.5	7.5	7.0	7.0	3.0	2.5	2.5	4.5	4.5	4.5
29	16.0	15.0	15.5	7.0	6.5	7.0	2.5	2.0	2.0	4.5	4.5	4.5
30	15.0	14.5	14.5	7.5	6.5	7.0	2.5	2.0	2.5	5.0	4.5	4.5
31	15.0	14.0	14.5	---	---	---	4.0	2.5	3.0	4.5	4.5	4.5
MONTH	21.0	14.0	17.0	15.5	6.5	12.0	10.5	2.0	6.0	8.0	1.5	3.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.5	3.5	4.0	5.5	5.0	5.5	16.0	14.5	15.0	18.5	17.0	18.0
2	4.0	2.5	3.0	6.5	5.5	6.0	15.0	14.5	14.5	18.5	17.0	18.0
3	3.5	2.5	3.0	7.0	6.5	6.5	---	---	---	19.0	17.5	18.0
4	4.0	3.0	3.5	7.5	6.5	7.0	---	---	---	19.0	18.0	18.5
5	3.5	2.0	3.0	8.5	7.5	8.0	---	---	---	18.5	17.5	18.0
6	2.5	1.5	2.0	9.0	8.5	9.0	---	---	---	19.5	17.5	18.0
7	1.5	1.5	1.5	8.5	7.5	8.0	10.5	9.5	10.0	20.0	18.0	19.0
8	2.0	1.5	1.5	8.5	7.5	8.0	10.5	9.0	10.0	21.0	18.5	20.0
9	2.5	2.0	2.0	9.0	7.5	8.0	9.5	9.5	9.5	23.0	19.5	21.5
10	2.0	1.5	2.0	9.0	8.0	8.5	10.0	9.0	9.5	24.0	21.0	22.5
11	2.0	1.5	1.5	9.0	7.5	8.5	11.0	9.0	10.0	25.0	22.5	24.0
12	1.5	1.5	1.5	7.5	6.5	7.0	11.5	10.5	11.0	24.0	23.0	23.5
13	1.5	1.5	1.5	7.5	6.0	7.0	12.0	11.0	11.5	23.5	22.5	23.0
14	1.5	1.0	1.5	8.5	7.0	8.0	11.0	10.5	11.0	23.0	21.5	22.0
15	1.5	1.5	1.5	8.5	7.0	7.5	11.0	10.0	10.5	---	---	---
16	1.5	1.5	1.5	8.0	6.5	7.0	11.0	10.0	10.5	---	---	---
17	1.5	1.5	1.5	8.5	7.0	7.5	11.5	10.5	11.0	---	---	---
18	1.5	1.0	1.5	9.5	8.0	8.5	12.5	10.5	11.5	---	---	---
19	1.5	1.5	1.5	10.5	9.0	10.0	13.5	11.5	12.5	---	---	---
20	1.5	1.5	1.5	---	---	---	14.5	12.0	13.0	---	---	---
21	1.5	1.5	1.5	11.5	11.0	11.5	15.5	13.0	14.0	---	---	---
22	2.0	1.5	1.5	13.0	11.0	12.0	16.0	14.5	15.0	19.0	19.0	19.0
23	3.0	2.0	2.5	14.0	11.5	12.5	17.0	15.5	16.5	19.0	19.0	19.0
24	4.0	2.0	3.5	13.5	13.0	13.0	17.0	16.0	16.5	19.0	19.0	19.0
25	3.0	2.0	2.5	13.5	12.5	13.5	18.5	16.5	17.5	21.0	19.0	19.5
26	3.0	2.5	3.0	12.5	11.0	12.0	19.0	18.0	19.0	---	---	---
27	3.5	3.0	3.0	11.0	10.0	11.0	18.5	18.0	18.0	---	---	---
28	5.0	3.5	4.0	10.5	9.0	9.5	18.0	17.0	17.5	---	---	---
29	---	---	---	---	---	---	17.5	16.0	16.5	---	---	---
30	---	---	---	12.5	11.0	12.0	18.0	16.0	17.0	---	---	---
31	---	---	---	14.5	12.5	13.5	---	---	---	---	---	---
MONTH	5.0	1.0	2.0	14.5	5.0	9.0	19.0	9.0	13.5	25.0	17.0	20.0

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	24.5	23.5	24.0	29.0	26.5	27.5	29.0	26.5	27.5
2	---	---	---	24.0	22.5	23.5	28.5	27.0	27.5	28.0	26.5	27.5
3	---	---	---	24.5	22.5	23.5	28.0	27.0	28.0	27.5	27.0	27.0
4	19.0	18.5	18.5	22.5	21.5	22.0	29.0	27.0	28.0	27.5	26.5	27.5
5	20.0	18.5	19.0	22.0	21.5	21.5	29.5	27.5	28.5	27.5	26.5	27.0
6	21.0	19.5	20.0	22.5	21.0	21.5	30.0	28.5	29.0	26.5	25.5	26.0
7	22.5	20.5	21.5	23.0	21.5	22.0	29.5	28.0	28.5	26.0	24.0	24.5
8	23.0	21.5	22.0	23.5	22.0	22.5	29.5	27.5	28.5	24.0	23.0	23.5
9	23.0	22.5	22.5	25.0	22.5	23.5	29.0	27.5	28.0	23.5	22.5	23.0
10	24.5	22.5	23.5	24.5	23.0	24.0	29.0	27.5	28.0	23.0	21.5	22.5
11	23.5	21.5	22.5	26.0	23.5	24.5	28.5	26.0	27.5	22.5	22.0	22.0
12	22.5	21.0	21.5	26.5	24.5	25.0	26.0	23.5	25.0	22.5	21.0	22.0
13	21.5	20.0	21.0	27.5	25.5	26.5	23.5	21.5	22.5	23.5	21.5	22.5
14	22.5	19.5	21.0	28.0	26.0	26.5	22.5	21.0	21.5	23.0	22.5	22.5
15	23.0	20.5	21.5	28.0	26.0	27.0	22.0	21.0	21.5	23.0	22.0	22.5
16	23.5	21.5	22.5	29.5	27.5	28.5	22.5	21.0	21.5	23.0	21.5	22.0
17	24.0	22.5	23.0	28.5	26.0	27.5	23.0	21.0	22.0	23.0	21.5	22.5
18	24.5	23.5	24.0	27.5	26.0	27.0	22.0	21.5	21.5	22.5	22.0	22.5
19	24.0	23.0	23.5	28.0	25.5	26.5	23.5	21.5	22.0	23.0	21.0	22.0
20	25.0	23.5	24.0	28.0	26.5	27.5	24.5	22.5	23.0	22.0	20.5	21.0
21	25.0	23.5	24.0	27.5	26.5	27.0	24.5	23.5	24.0	21.0	20.5	20.5
22	24.0	23.0	23.5	27.5	26.5	27.0	25.0	23.0	24.0	21.0	18.5	19.5
23	24.5	23.0	23.5	27.0	26.5	27.0	25.0	24.0	24.5	20.5	18.5	19.5
24	24.0	22.5	23.5	27.5	26.0	26.5	25.0	24.0	24.5	19.0	18.0	18.5
25	23.5	21.5	22.5	27.5	26.0	26.5	26.0	24.5	25.5	19.0	18.0	18.5
26	23.5	21.5	22.5	27.5	26.5	27.0	26.5	25.5	26.0	19.5	18.5	19.0
27	24.0	22.5	23.0	28.0	27.5	27.5	27.0	25.5	26.5	19.5	19.0	19.0
28	24.0	23.0	23.5	29.0	27.0	28.0	28.0	26.0	27.0	---	---	---
29	24.0	22.5	23.0	28.0	27.0	27.5	27.5	26.5	27.0	---	---	---
30	25.5	23.0	24.0	27.0	25.0	26.0	28.0	26.5	27.5	---	---	---
31	---	---	---	27.5	26.0	27.0	29.0	26.5	28.0			
MONTH	25.5	18.5	22.5	29.5	21.0	25.5	30.0	21.0	25.5	29.0	18.0	22.5

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	9.7	8.9	9.3	11.4	11.2	11.3	---	---	---
2	---	---	---	9.4	8.7	9.1	11.4	11.1	11.2	---	---	---
3	---	---	---	9.4	8.5	9.0	11.3	11.0	11.2	11.1	10.4	10.7
4	---	---	---	9.1	8.2	8.7	11.1	10.4	10.7	11.6	10.5	11.2
5	8.2	7.0	7.7	8.8	7.9	8.3	10.7	10.5	10.6	11.8	11.5	11.7
6	9.0	7.0	7.9	9.5	7.6	8.5	10.9	10.6	10.8	11.8	11.5	11.6
7	9.4	8.6	9.0	9.7	8.6	9.1	11.0	10.7	10.8	11.5	11.1	11.3
8	9.3	8.2	8.8	9.3	8.6	8.9	10.9	10.5	10.7	11.2	11.0	11.1
9	9.7	8.6	9.2	9.5	8.4	8.9	10.5	10.1	10.3	11.5	11.1	11.4
10	9.9	8.4	9.3	9.4	8.5	9.0	12.3	10.4	11.3	11.8	11.4	11.6
11	10.9	8.9	10.0	9.2	8.2	8.7	12.7	12.2	12.4	11.9	11.6	11.7
12	10.8	8.8	10.1	9.7	8.6	9.1	12.6	12.4	12.5	11.8	11.5	11.7
13	12.5	10.8	11.7	9.6	8.9	9.2	12.5	12.1	12.3	11.6	11.2	11.4
14	12.8	10.3	11.3	9.3	8.6	9.0	12.3	12.0	12.2	12.0	10.6	11.2
15	13.4	9.3	11.1	9.5	8.9	9.1	12.3	11.9	12.1	11.4	10.9	11.2
16	10.8	8.8	9.8	9.9	8.7	9.3	12.0	11.7	11.8	11.4	11.0	11.2
17	10.9	8.8	9.7	9.7	9.2	9.5	11.8	11.4	11.6	11.3	10.4	10.8
18	10.0	8.2	9.2	9.5	9.1	9.3	11.8	11.5	11.6	10.4	10.2	10.2
19	9.8	8.9	9.4	10.0	9.2	9.8	11.9	11.6	11.7	10.8	10.3	10.6
20	9.8	8.9	9.3	10.6	10.0	10.3	11.8	11.5	11.6	10.8	10.6	10.7
21	10.6	8.9	9.8	11.0	10.2	10.6	11.6	11.1	11.3	11.5	9.9	10.3
22	10.5	9.0	9.7	11.1	10.3	10.7	11.5	11.1	11.4	11.7	10.0	10.5
23	9.7	8.6	9.2	10.8	10.3	10.6	11.6	10.8	11.3	10.4	10.1	10.2
24	10.1	8.3	9.2	11.3	10.5	10.8	---	---	---	10.2	10.0	10.1
25	10.9	9.3	9.9	11.4	10.5	11.0	---	---	---	---	---	---
26	10.7	8.9	9.5	11.8	11.2	11.5	12.7	12.2	12.4	---	---	---
27	9.3	8.5	8.9	12.0	11.5	11.8	12.3	11.1	11.8	---	---	---
28	9.9	8.5	9.3	12.3	11.8	12.0	11.2	11.0	11.1	---	---	---
29	9.8	9.1	9.5	12.1	10.9	11.3	11.4	11.1	11.3	---	---	---
30	9.8	9.0	9.5	11.4	10.9	11.2	11.4	11.1	11.3	---	---	---
31	9.8	8.8	9.4	---	---	---	11.2	10.7	11.0	12.7	11.8	12.5
MONTH	13.4	7.0	9.5	12.3	7.6	9.8	12.7	10.1	11.4	12.7	9.9	11.1

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.5	12.4	12.5	---	---	---	9.7	8.9	9.3	9.5	8.0	8.8
2	12.7	11.3	12.5	---	---	---	9.4	8.8	9.1	9.2	8.1	8.6
3	12.7	12.5	12.6	---	---	---	---	---	---	9.2	8.0	8.5
4	12.7	12.3	12.5	---	---	---	---	---	---	9.0	7.7	8.4
5	13.4	12.4	12.6	---	---	---	---	---	---	9.6	7.6	8.6
6	13.5	11.0	12.9	11.2	10.8	11.0	---	---	---	10.5	7.9	9.1
7	13.4	13.1	13.3	11.4	10.9	11.2	11.2	10.2	10.8	10.9	8.6	9.9
8	13.4	13.2	13.3	11.4	11.1	11.3	11.3	10.6	11.0	11.1	8.6	9.9
9	13.2	12.9	13.1	11.4	8.9	11.1	10.8	10.2	10.5	13.7	8.8	11.1
10	13.3	12.9	13.1	11.3	11.0	11.2	11.3	10.4	10.9	13.2	9.4	11.4
11	13.5	13.0	13.2	11.0	10.7	10.8	---	---	---	10.9	7.4	9.1
12	13.5	13.2	13.4	11.8	11.1	11.5	---	---	---	8.7	6.6	7.7
13	13.4	13.2	13.3	11.6	11.3	11.5	---	---	---	8.4	6.0	7.1
14	13.5	13.2	13.4	11.2	10.4	10.8	---	---	---	7.3	6.3	6.8
15	13.4	13.1	13.3	11.2	10.4	10.8	---	---	---	---	---	---
16	13.3	12.2	13.0	---	---	---	11.5	9.6	10.8	---	---	---
17	13.2	11.9	12.8	---	---	---	11.6	10.9	11.3	---	---	---
18	13.5	13.2	13.3	---	---	---	12.0	11.1	11.5	---	---	---
19	13.3	13.0	13.1	---	---	---	11.4	10.7	11.2	---	---	---
20	13.1	12.9	12.9	---	---	---	11.3	10.4	10.8	---	---	---
21	13.0	12.8	12.9	10.5	9.9	10.3	11.1	10.2	10.6	---	---	---
22	13.2	12.3	12.8	10.0	9.1	9.7	12.1	9.8	10.7	5.2	4.9	5.0
23	12.6	12.1	12.3	9.7	9.3	9.6	10.1	9.5	9.7	5.0	4.8	4.9
24	12.6	11.9	12.2	---	---	---	---	---	---	5.0	4.6	4.9
25	13.2	12.5	12.8	---	---	---	---	---	---	---	---	---
26	12.8	11.6	12.2	---	---	---	---	---	---	---	---	---
27	12.4	11.6	12.0	---	---	---	---	---	---	---	---	---
28	---	---	---	10.9	10.5	10.7	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	10.4	9.5	9.9	9.7	8.4	9.0	---	---	---
31	---	---	---	9.8	9.2	9.6	---	---	---	---	---	---
MONTH	13.5	11.0	12.9	11.8	8.9	10.7	12.1	8.4	10.5	13.7	4.6	8.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	8.0	4.8	6.1
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	10.8	10.5	10.7	---	---	---	---	---	---	---	---	---
5	10.9	10.4	10.7	8.7	6.8	8.0	---	---	---	---	---	---
6	11.0	10.2	10.6	11.5	7.2	9.4	---	---	---	---	---	---
7	11.0	9.8	10.3	11.8	8.9	10.5	---	---	---	---	---	---
8	11.4	9.5	10.4	11.3	9.1	10.1	---	---	---	---	---	---
9	11.4	9.3	10.3	11.2	9.0	10.3	---	---	---	---	---	---
10	12.0	9.3	10.7	10.9	9.0	10.0	9.5	7.8	8.6	---	---	---
11	10.6	9.0	9.6	10.4	7.6	9.4	---	---	---	---	---	---
12	11.6	8.9	10.3	10.4	8.6	9.4	---	---	---	---	---	---
13	11.4	9.6	10.6	9.8	7.3	8.7	---	---	---	---	---	---
14	13.2	9.6	11.3	8.4	5.1	6.6	---	---	---	---	---	---
15	14.3	9.8	12.2	8.6	4.2	6.1	8.3	6.8	7.5	---	---	---
16	14.7	10.3	12.9	10.0	5.2	7.5	8.2	6.4	7.3	---	---	---
17	13.6	10.0	11.9	8.9	5.4	6.9	9.0	7.2	8.0	---	---	---
18	14.4	8.8	11.5	5.9	4.4	5.0	8.2	7.0	7.5	---	---	---
19	13.5	8.8	11.4	6.9	4.3	5.4	8.9	6.8	7.7	---	---	---
20	14.3	9.0	11.8	9.4	4.5	6.8	9.0	7.0	7.9	---	---	---
21	13.8	9.1	11.8	7.8	4.4	5.7	8.4	6.2	7.2	---	---	---
22	12.7	8.5	10.2	8.7	4.4	6.5	9.2	6.5	7.6	---	---	---
23	11.7	7.0	9.6	8.8	4.8	6.4	9.6	7.4	8.6	---	---	---
24	11.3	7.5	9.3	7.3	4.6	5.6	8.8	7.2	7.9	---	---	---
25	13.2	8.4	10.8	7.1	4.0	5.5	9.0	6.7	7.8	---	---	---
26	14.2	10.8	12.1	6.9	4.6	5.7	8.3	6.1	7.1	---	---	---
27	---	---	---	7.8	4.5	6.2	8.5	5.6	7.1	---	---	---
28	---	---	---	8.0	5.2	6.7	7.9	6.4	7.1	---	---	---
29	---	---	---	---	---	---	7.5	6.2	6.7	---	---	---
30	---	---	---	---	---	---	8.1	5.2	6.6	---	---	---
31	---	---	---	---	---	---	8.0	5.2	6.6	---	---	---
MONTH	14.7	7.0	10.9	11.8	4.0	7.4	9.6	5.2	7.5	8.0	4.8	6.1
YEAR	14.7	4.0	10.1									

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

01474505 SCHUYLKILL RIVER ABOVE PASSYUNK AVENUE AT PHILADELPHIA, PA

LOCATION.--Lat 39°55'18", long 75°12'16", Philadelphia County, Hydrologic Unit 02040203, on west face of Philadelphia Fire Department dock in the embayment off the main channel of the Schuylkill River on left bank 1,200 feet (370 m) upstream from Passyunk Avenue at Philadelphia.

DRAINAGE AREA.--1,900 mi² (4,920 km²).

PERIOD OF RECORD.--September 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Corps of Engineers benchmark).

REMARKS.--Records fair.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 7.26 ft (2.218 m) Jan. 25; minimum, -4.90 ft (-1.494 m) Jan. 18.

Summaries of tide elevations during current year are as follows:

	Maximum elevation	High tide date	Minimum elevation	Low tide date	Mean high tide	Mean water level	Mean low tide
Oct.	5.34	4	-2.95	27	4.30	1.31	-2.08
Nov.	5.39	17	-3.00	29	4.35	1.33	-2.03
Dec.	4.91	3	-4.40	17	3.84	.71	-2.69
Jan.	7.26	25	-4.90	18	4.52	1.37	-2.09
Feb.	6.91	27	-4.40	6	--	--	--
Mar.	5.76	24	-3.80	15	4.30	1.34	-2.11
Apr.	6.73	27	-4.00	7	4.43	1.29	-2.26
May.	5.72	26	-3.03	17	4.56	1.49	-2.07
June	5.56	11	-3.03	16	4.67	1.44	-2.20
July	5.48	12	-2.95	5	4.60	1.43	-2.18
Aug.	5.67	8	-3.12	15	4.69	1.55	-2.03
Sept	7.12	6	-3.02	19	4.91	1.73	-1.92

LAKES AND RESERVOIRS IN SCHUYLKILL RIVER BASIN

01469200 STILL CREEK RESERVOIR.--Lat 40°51'25", long 75°59'30", Schuylkill County, Hydrologic Unit 02040106, at dam on Still Creek, 1 mi (1.6 km) upstream from mouth and 2.3 mi (3.7 km) north of Hometown, Pa. DRAINAGE AREA, 8.5 mi² (22.0 km²). PERIOD OF RECORD, January 1933 to current year. Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Panther Valley Water Co.).

Reservoir formed by earthfill dam, with ungated concrete spillway at elevation 1,182.00 ft (360.274 m). Storage began in February 1933. Capacity at elevation 1,182.00 ft (360.274 m) is 8,290 acre-ft (10.2 hm³). Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is accomplished by valves on pipe through dam. Records furnished by Panther Valley Water Co.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 8,570 acre-ft (10.6 hm³) Oct. 15, 1955, elevation, 1,182.92 ft (360.554 m), but may have been greater during 1950 or 1951 water years; minimum (after first filling), 588 acre-ft (0.725 hm³) Dec. 8, 1944, elevation, 1,136.70 ft (346.466 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 8,440 acre-ft (10.4 hm³) Jan. 26, 27, elevation, 1,182.50 ft (360.426 m); minimum, 6,620 acre-ft (8.16 hm³) Nov. 30, elevation, 1,176.08 ft (358.469 m).

01470870 BLUE MARSH LAKE.--Lat 40°22'45", long 76°01'59", Berks County, Hydrologic Unit 02040203, at dam on Tulpehocken Creek, 0.8 mi (1.3 km) upstream from gaging station on Tulpehocken Creek, 1.0 mi (1.6 km) northeast of Blue Marsh, 1.9 mi (3.1 km) upstream from Reber's Bridge, and 5.1 mi (8.2 km) southeast of Bernville. DRAINAGE AREA, 175 mi² (453 km²). PERIOD OF RECORD, April 1979 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by earthfill dam, with concrete ungated spillway at elevation 307.00 ft (93.574 m). Storage began April 23, 1979. Capacity at elevation 307.00 ft (93.574 m) is 50,000 acre-ft (61.6 hm²). Dead storage is 3,000 acre-ft (3.70 hm²). Reservoir is used for flood control, water supply, and recreation. Figures herein represent total contents. Records furnished by Corps of Engineers.

EXTREMES FOR CURRENT YEAR: Maximum contents, 24,580 acre-ft (30.3 hm³) Sept. 22, elevation, 291.43 ft (88.828 m); minimum, 62 acre-ft (76,400 m³) April 26, elevation, 241.40 ft (73.579 m).

01472200 GREEN LANE RESERVOIR.--Lat 40°20'30", long 75°28'45", Montgomery County, Hydrologic Unit 02040203, at dam on Perkiomen Creek, 0.4 mi (0.6 km) west of Green Lane and 2.1 mi (3.4 km) upstream from Unami Creek. DRAINAGE AREA, 70.9 mi² (183.6 km²). PERIOD OF RECORD, December 1956 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Philadelphia Suburban Water Co.).

Reservoir formed by concrete, gravity-type dam, with ungated spillway at elevation 286.00 ft (87.173 m). Storage began December 21, 1956. Capacity at elevation 286.00 ft (87.173 m) is 13,430 acre-ft (16.6 hm³). Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is accomplished by valves on pipe through dam. Records furnished by Philadelphia Suburban Water Co.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 17,030 acre-ft (21.0 hm³) June 23, 1972, elevation, 290.05 ft (88.407 m); minimum (after first filling), 1,270 acre-ft (1.57 hm³) Aug. 25, 1957, elevation, 251.60 ft (76.688 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 16,980 acre-ft (20.9 hm³) May 5, elevation, 289.99 ft (88.389 m); minimum, 12,500 acre-ft (15.4 hm³) Nov. 16, elevation, 284.94 ft (86.850 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01469200 Still Creek Reservoir			01470870 Blue Marsh Lake		
Sept. 30	1,178.58	7,310	--	239.55		
Oct. 31	1,178.08	7,170	- 2.3	239.38		
Nov. 30	1,176.08	6,620	- 9.2	240.41		
Dec. 31	1,177.17	6,920	+ 4.9	244.15		
CAL YR 1978	--	--	- 1.9	--	--	--
Jan. 31	1,182.25	8,360	+ 23.4	260.63		
Feb. 28	1,182.17	8,340	- 0.4	280.43		
Mar. 31	1,182.04	8,300	- 0.7	241.89		
Apr. 30	1,182.04	8,300	0	242.00	73	+ 1.2
May 31	1,182.17	8,340	+ 0.7	273.62	8,802	+142.0
June 30	1,181.75	8,210	- 2.2	283.22	15,966	+120.4
July 31	1,181.25	8,070	- 2.3	283.58	16,294	+ 5.3
Aug. 31	1,180.17	7,750	- 5.2	284.72	17,358	+ 17.3
Sept. 30	1,181.33	8,090	+ 5.7	289.81	22,683	+ 89.5
WTR YR 1979	--	--	+ 1.1	--	--	+ 31.3
	01472200 Green Lane Reservoir					
Sept. 30	285.65	13,120	--			
Oct. 31	285.35	12,850	- 4.4			
Nov. 30	285.95	13,390	+ 9.1			
Dec. 31	286.13	13,550	+ 2.6			
CAL YR 1978	--	--	+ 0.1			
Jan. 31	286.10	13,520	- 0.5			
Feb. 28	286.24	13,640	+ 2.2			
Mar. 31	286.04	13,470	- 2.8			
Apr. 30	286.04	13,470	0			
May 31	286.07	13,490	+ 0.3			
June 30	285.96	13,400	- 1.5			
July 31	285.96	13,400	0			
Aug. 31	285.88	13,330	- 1.1			
Sept. 30	286.00	13,430	+ 1.7			
WTR YR 1979	--	--	+ 0.4			

DARBY CREEK BASIN

01475300 DARBY CREEK AT WATERLOO MILLS NEAR DEVON, PA

LOCATION.--Lat 40°01'21", long 75°25'20", Chester County, Hydrologic Unit 02040202, on left bank 125 ft (38 m) upstream from bridge on Waterloo Road, 2 mi (3.2 km) south of Devon, and 2.5 mi (4.0 km) northwest of Newtown Square.

DRAINAGE AREA.--5.15 mi² (13.3 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 310 ft (94 m), from topographic map.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--7 years, 10.9 ft³/s (0.309 m³/s), 28.73 in/yr (730 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,800 ft³/s (51.0 m³/s) Sept. 6, 1979, gage height, 6.71 ft (2.045 m); minimum, 0.86 ft³/s (0.024 m³/s) Nov. 11, 1976; minimum gage height, 1.36 ft (0.415 m) Nov. 9, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s (5.66 m³/s) and maximum(*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Dec. 9	0800	218	6.17	3.43	1.045	May 23	2330	672	19.0	4.85	1.478
Jan. 21	0345	502	14.2	4.43	1.350	July 30	2230	654	18.5	4.81	1.466
Jan. 24	1900	1,360	38.5	6.08	1.853	Sept. 6	0500	*1,800	51.0	*6.71	2.045
Feb. 24	2315	322	9.12	3.85	1.173	Sept. 21	2400	546	15.5	4.54	1.384
Feb. 26	0345	735	20.8	4.99	1.521	Sept. 30	0445	1,430	40.5	6.19	1.887

Minimum discharge, 1.8 ft³/s (0.051 m³/s) Oct. 11, gage height, 1.38 ft (0.421 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	2.9	5.5	13	15	22	11	9.6	11	11	6.1	3.4
2	2.4	2.9	4.3	46	15	19	11	9.2	10	6.6	4.9	3.6
3	2.4	2.9	3.9	16	15	18	13	9.6	19	5.8	12	3.6
4	3.4	2.9	13	10	14	17	13	9.6	25	6.9	7.2	3.9
5	3.4	2.9	17	9.2	14	16	14	9.2	13	6.4	4.5	18
6	9.6	2.9	5.8	9.2	14	46	11	8.5	11	5.5	4.1	216
7	4.1	2.9	4.5	21	15	22	10	8.2	10	4.9	3.9	8.9
8	2.1	2.9	8.5	65	15	18	10	7.8	9.6	4.7	3.6	4.3
9	2.2	2.9	70	14	14	16	20	7.8	9.2	4.7	3.2	5.2
10	4.1	2.8	14	11	13	17	15	7.5	8.9	4.5	5.2	4.9
11	3.0	2.8	8.9	10	13	24	12	7.2	24	4.3	4.5	8.9
12	2.2	2.8	7.8	10	14	18	12	7.5	11	4.3	31	4.7
13	2.5	2.8	7.2	11	13	16	11	11	9.6	4.1	10	6.4
14	3.4	2.9	6.4	15	13	16	28	11	8.5	4.5	6.1	14
15	3.2	3.2	6.1	10	13	14	14	8.2	8.2	4.3	4.9	5.8
16	3.6	3.8	5.8	8.9	12	13	12	7.2	7.8	11	4.5	6.1
17	10	4.5	6.1	8.9	12	13	11	6.9	8.5	8.2	4.3	13
18	3.9	11	5.5	8.2	12	13	11	19	7.8	8.5	5.8	14
19	3.6	3.9	5.2	7.5	14	13	11	22	7.2	4.9	5.5	2.1
20	3.4	3.0	5.5	15	15	12	14	12	6.9	4.3	5.2	2.0
21	4.1	3.0	12	221	22	11	9.6	9.6	6.6	10	4.3	41
22	4.1	2.8	6.4	18	33	12	6.4	8.5	11	5.2	4.3	98
23	2.5	3.2	5.8	14	31	11	8.5	75	11	4.5	3.9	20
24	2.3	4.3	16	227	112	33	9.6	90	7.2	4.9	6.4	10
25	2.4	2.8	29	34	98	24	9.6	26	6.6	4.3	4.5	10
26	2.5	2.8	8.9	23	145	16	19	15	6.1	11	4.3	16
27	4.8	3.9	7.5	18	25	12	24	13	6.1	4.9	4.5	16
28	3.0	6.9	6.6	17	27	12	13	13	6.1	4.1	4.5	16
29	2.9	7.8	6.1	16	---	12	11	12	7.2	4.1	5.8	8.9
30	3.1	15	6.1	15	---	11	10	11	7.5	64	5.8	208
31	2.9	---	7.8	15	---	11	---	11	---	30	3.9	---
TOTAL	112.9	122.1	323.2	936.9	768	528	384.7	483.1	301.6	266.4	188.7	792.7
MEAN	3.64	4.07	10.4	30.2	27.4	17.0	12.8	15.6	10.1	8.59	6.09	26.4
MAX	10	15	70	227	145	46	28	90	25	64	31	216
MIN	2.1	2.8	3.9	7.5	12	11	6.4	6.9	6.1	4.1	3.2	2.0
CFSM	.71	.79	2.02	5.86	5.32	3.30	2.49	3.03	1.96	1.67	1.18	5.13
IN.	.82	.88	2.33	6.77	5.55	3.81	2.78	3.49	2.18	1.92	1.36	5.72

CAL YR 1978 TOTAL 4456.2 MEAN 12.2 MAX 266 MIN 2.1 CFSM 2.37 IN 32.18
WTR YR 1979 TOTAL 5208.3 MEAN 14.3 MAX 227 MIN 2.0 CFSM 2.78 IN 37.61

01475300 DARBY CREEK AT WATERLOO MILLS NEAR DEVON, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1970 to current year.

WATER-QUALITY DATA, OCTOBER 1978

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
OCT										
27...	1130	320	7.4	11.5	10.0	93	28	22	9.2	11

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT										
27...	2.6	79	0	65	5.0	20	20	.1	13	148

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)
OCT										
27...	137	2.0	.02	2.0	.07	.43	.50	2.5	.040	.02

DATE	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, DISSOLVED (UG/L AS ZN)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT										
27...	0	0	0	2	100	3	40	2	0	.10

01475510 DARBY CREEK NEAR DARBY, PA

LOCATION.--Lat 39°55'44", long 75°16'22", Delaware County, Hydrologic Unit 02040202, on right bank 20 ft (6 m) upstream from Providence Road Bridge, 1.1 mi (1.8 km) northwest of Upper Darby, 2.3 mi (3.7 km) upstream from Cobbs Creek, and 8.4 mi (13.5 km) upstream from mouth.

DRAINAGE AREA.--37.4 mi^2 (96.9 km^2).

PERIOD OF RECORD.--February 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 19.41 ft (5.916 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years, 71.0 ft^3/s (2.011 m^3/s), 25.77 in/yr (655 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,920 ft^3/s (168 m^3/s) Aug. 23, 1974, gage height, 10.23 ft (3.118 m), from rating curve extended above 920 ft^3/s (26 m^3/s) on basis of step-backwater analysis; minimum, 8.8 ft^3/s (0.25 m^3/s) Sept. 2, 1966, gage height, 1.16 ft (0.354 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft^3/s (22.7 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage Height (ft)	Gage Height (m)
Dec. 9	0930	1,120	31.7	4.41	1.344	May 24	0230	2,190	62.0	6.34	1.932
Dec. 25	0145	939	26.6	4.02	1.225	July 16	2400	1,040	29.5	4.25	1.295
Jan. 8	0015	1,040	29.5	4.23	1.289	July 18	1630	2,490	70.5	6.77	2.063
Jan. 21	0345	2,250	63.7	6.43	1.960	July 24	1730	908	25.7	3.95	1.204
Jan. 24	1900	2,130	60.3	6.26	1.908	Aug. 4	0130	1,340	37.9	4.84	1.475
Feb. 24	0415	ice jam		5.52	1.682	Sept. 6	unknown	*4,460	126	*8.98	2.737
Feb. 24	2330	2,060	58.3	6.15	1.875	Sept. 21	unknown	1,900	53.8	unknown	
Feb. 26	0345	2,300	65.1	6.50	1.981	Sept. 30	unknown	3,800	108	unknown	
Apr. 26	2200	849	24.0	3.82	1.164						

Minimum discharge, 20 ft^3/s (0.57 m^3/s) Oct. 24, Nov. 10, 11, 13, 15, gage height, 1.31 ft (0.399 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	22	36	70	77	137	64	61	74	138	41	28
2	38	22	28	348	72	132	69	59	72	48	45	35
3	24	22	27	126	71	118	79	58	147	44	117	31
4	26	22	96	58	71	103	79	59	161	47	249	33
5	26	22	119	55	65	109	86	59	83	48	49	160
6	38	22	38	51	64	329	64	53	71	41	41	1000
7	27	22	31	149	64	150	60	53	68	39	45	200
8	23	22	39	536	64	111	60	52	65	37	37	40
9	22	22	474	96	66	97	134	49	61	36	34	32
10	23	21	107	72	64	90	128	50	60	36	33	32
11	24	21	50	63	64	156	69	50	242	36	52	30
12	22	21	43	62	64	95	68	53	83	34	213	27
13	22	21	41	86	70	87	66	71	64	34	90	27
14	25	22	38	98	65	87	213	72	60	70	46	113
15	24	22	35	63	64	81	90	56	59	51	40	47
16	24	28	34	54	64	76	74	52	58	111	38	60
17	71	33	35	54	62	75	69	48	64	155	36	91
18	27	93	32	52	63	73	65	131	57	268	41	39
19	25	27	33	52	64	71	63	156	54	55	49	48
20	24	23	35	119	70	70	63	78	54	41	37	39
21	23	22	69	1310	176	68	71	58	53	67	36	38
22	24	22	36	131	249	68	62	54	73	46	34	500
23	23	22	33	86	187	67	62	156	109	44	32	150
24	21	30	98	705	849	184	62	742	49	150	61	90
25	22	22	288	311	834	156	67	210	47	53	39	75
26	23	21	53	122	1010	83	169	100	45	128	38	72
27	35	26	44	104	208	71	228	85	43	56	33	68
28	24	47	39	98	158	67	89	91	43	42	39	66
29	23	48	40	89	---	70	75	77	54	40	67	150
30	24	100	40	82	---	66	64	74	48	40	39	590
31	22	---	42	79	---	64	---	72	---	124	30	---
TOTAL	876	890	2153	5381	4999	3211	2612	3039	2221	2159	1781	3911
MEAN	28.3	29.7	69.5	174	179	104	87.1	98.0	74.0	69.6	57.5	130
MAX	77	100	474	1310	1010	329	228	742	242	268	249	1000
MIN	21	21	27	51	62	64	60	48	43	34	30	27
CFSM	.76	.79	1.86	4.65	4.79	2.78	2.33	2.62	1.98	1.86	1.54	3.48
IN.	.87	.89	2.14	5.35	4.97	3.19	2.60	3.02	2.21	2.15	1.77	3.89

CAL YR 1978 TOTAL 27516 MEAN 75.4 MAX 1500 MIN 21 CFSM 2.02 IN 27.37
WTR YR 1979 TOTAL 33233 MEAN 91.0 MAX 1310 MIN 21 CFSM 2.43 IN 33.05

DARBY CREEK BASIN

01475530 COBBS CREEK AT U.S. HIGHWAY NO. 1 AT PHILADELPHIA, PA

LOCATION.--Lat 39°59'29", long 75°16'49", Philadelphia County, Hydrologic Unit 02040203, on left bank 30 ft (9 m) downstream from bridge on U. S. Highway No. 1 and 50 ft (15 m) upstream from unnamed tributary at west city limits of Philadelphia.

DRAINAGE AREA.--4.78 mi² (12.4 km²).

PERIOD OF RECORD.--October 1964 to current year. Prior to October 1973 published as "near Philadelphia".

GAGE.--Water-stage recorder, concrete control, and crest-stage gage. Datum of gage is 121.76 ft (37.112 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years, 7.42 ft³/s (0.210 m³/s), 21.08 in/yr (535 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,480 ft³/s (98.6 m³/s) Aug. 23, 1974, gage height, 10.48 ft (3.194 m), from rating curve extended above 160 ft³/s (4.5 m³/s) on basis of computation of flow through culvert at gage height 9.18 ft (2.798 m); minimum, 0.3 ft³/s (0.008 m³/s) Oct. 13, Nov. 24, 25, 1965; minimum gage height, 2.03 ft (0.619 m) Nov. 25, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s (7.08 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Jan. 21	0400	340	9.63	5.16	1.573	July 16	2215	402	11.4	5.41	1.649
Feb. 26	0330	272	7.70	4.84	1.475	July 24	1645	275	7.79	4.86	1.481
May 23	2400	272	7.70	4.84	1.475	Sept. 6	0445	*2,300	65.1	*9.17	2.795

Minimum discharge, 2.6 ft³/s (0.074 m³/s) Oct. 1, Dec. 17; minimum gage height, 2.22 ft (0.677 m) Oct. 9, Nov. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	3.2	4.2	11	6.1	10	5.0	4.7	7.5	10	4.9	3.2
2	3.9	3.2	3.7	66	5.8	9.3	5.6	4.4	5.2	5.5	11	7.5
3	3.4	3.2	4.2	10	5.5	8.2	6.2	5.5	21	4.9	16	3.9
4	4.7	3.2	19	5.2	5.5	7.5	6.2	4.7	22	7.2	9.1	4.7
5	3.7	3.4	20	4.4	5.2	8.6	6.0	3.9	6.8	5.2	4.9	12
6	4.2	3.2	5.5	4.7	5.5	48	5.0	3.7	6.4	4.7	7.5	178
7	3.7	3.2	4.9	38	5.5	12	5.4	3.7	16	4.2	4.9	9.3
8	3.4	3.2	11	70	5.2	8.2	5.0	3.9	7.2	4.2	4.4	7.2
9	3.4	3.2	72	8.9	4.7	7.5	25	4.2	5.8	4.2	4.2	6.8
10	3.4	3.2	7.5	6.5	4.9	7.2	7.0	4.2	5.5	4.2	3.9	7.2
11	3.2	3.2	4.2	5.8	4.9	17	5.0	3.9	41	4.2	10	7.5
12	3.2	3.2	3.7	5.5	4.9	7.2	5.4	4.9	9.6	3.9	40	7.2
13	3.4	3.2	3.4	14	5.2	6.8	5.0	10	8.2	3.9	7.2	6.8
14	5.2	3.2	3.2	10	5.2	6.8	29	8.2	7.5	12	4.9	21
15	3.4	3.4	3.2	5.5	5.2	6.1	6.8	4.7	6.8	8.2	4.4	8.2
16	4.9	4.9	3.0	4.9	4.9	5.8	5.5	4.4	6.8	37	4.2	6.8
17	14	8.9	3.2	4.9	4.9	5.8	7.9	3.9	8.9	12	3.9	6.5
18	3.7	15	3.7	4.7	4.9	5.8	5.2	27	6.8	17	7.5	6.1
19	3.7	3.4	3.7	4.4	4.9	5.8	4.7	22	6.1	6.8	5.5	5.5
20	3.4	3.2	3.7	23	4.9	5.8	4.4	6.1	4.9	5.5	4.2	5.8
21	3.4	3.2	9.6	133	5.5	5.6	4.4	4.9	4.9	11	4.6	32
22	3.4	3.2	2.8	10	15	5.6	4.4	4.4	10	5.2	4.2	25
23	3.4	4.2	2.8	7.5	14	5.6	4.7	23	8.2	5.2	3.9	12
24	3.2	4.7	31	64	111	26	3.9	63	5.2	24	7.2	6.0
25	3.2	3.2	34	16	91	7.0	4.4	27	5.5	7.5	5.8	4.5
26	3.4	3.2	4.4	9.6	89	5.6	26	8.2	4.9	21	4.4	4.5
27	7.5	4.7	3.9	8.2	18	5.4	24	6.8	4.7	6.8	4.9	4.0
28	3.4	12	3.4	8.2	12	5.4	9.6	12	7.2	5.5	4.7	9.3
29	3.4	14	3.4	7.2	---	5.4	6.5	6.8	7.9	5.2	4.7	15
30	3.2	10	3.2	6.5	---	5.2	5.2	6.8	12	5.2	4.2	78
31	3.2	---	4.9	6.5	---	5.0	---	6.1	---	4.7	3.9	---
TOTAL	133.6	146.2	290.4	584.1	459.3	281.2	248.4	307.0	280.5	266.1	215.1	511.5
MEAN	4.31	4.87	9.37	18.8	16.4	9.07	8.28	9.90	9.35	8.58	6.94	17.1
MAX	14	15	72	133	111	48	29	63	41	37	40	178
MIN	3.2	3.2	2.8	4.4	4.7	5.0	3.9	3.7	4.7	3.9	3.9	3.2
CFSM	.90	1.02	1.96	3.93	3.43	1.90	1.73	2.07	1.96	1.80	1.45	3.58
IN.	1.04	1.14	2.26	4.54	3.57	2.19	1.93	2.39	2.18	2.07	1.67	3.99

CAL YR 1978 TOTAL 3120.1 MEAN 8.55 MAX 126 MIN 2.8 CFSM 1.79 IN 24.28
WTR YR 1979 TOTAL 3723.4 MEAN 10.2 MAX 178 MIN 2.8 CFSM 2.13 IN 28.97

01475550 COBBS CREEK AT DARBY, PA

LOCATION.--Lat 39°55'02", long 75°14'52", Delaware County, Hydrologic Unit 02040202, on right bank 60 ft (18 m) upstream from dam, 200 ft (61 m) upstream from bridge on Woodland Avenue, at Darby, and 1.1 mi (1.8 km) upstream from mouth.

DRAINAGE AREA.--22.0 mi² (57.0 km²).

PERIOD OF RECORD.--February 1964 to current year.

REVISED RECORDS.--WDR PA-75-1: 1974(M)

GAGE.--Water-stage recorder and masonry control. Datum of gage is 11.93 ft (3.636 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 29, 1964, nonrecording gage at same site and datum.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years, 31.1 ft³/s (0.881 m³/s), 19.21 in/yr (488 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,490 ft³/s (127 m³/s) June 29, 1973, gage height, 10.98 ft (3.347 m), from rating curve extended above 850 ft³/s (24.1 m³/s) on basis of computation of peak flow through culvert; maximum gage height, 12.85 ft (3.917 m) Aug. 23, 1974, backwater from storage tank; no flow on many days in 1964-66.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s (34.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Jan. 21	0445	1,480	41.9	5.07	1.545	July 16	2300	2,130	60.3	6.44	1.963
Jan. 24	1945	1,260	35.7	4.58	1.396	July 18	1600	1,660	47.0	5.44	1.658
Feb. 24	2400	1,220	34.6	4.49	1.369	July 24	1500	1,360	38.5	4.80	1.463
Feb. 26	0315	1,420	40.2	4.94	1.506	Sept. 6	0345	*2,540	71.9	*7.30	2.225
May 24	0445	1,320	37.4	4.72	1.439	Sept. 30	0400	1,450	41.1	4.99	1.521

Minimum discharge, 6.9 ft³/s (0.20 m³/s) Nov. 25, 26, gage height, 1.34 ft (0.408 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	8.9	13	41	32	41	30	33	29	49	21	12
2	23	8.9	10	319	32	39	33	33	26	25	55	35
3	18	8.0	11	39	32	33	39	33	123	16	41	22
4	23	8.4	82	28	32	33	39	33	97	24	53	19
5	18	8.2	44	25	30	35	37	33	41	22	18	132
6	32	7.8	21	26	30	241	30	33	30	16	18	535
7	12	8.0	17	169	30	41	32	33	129	15	18	23
8	11	8.0	30	340	32	33	30	32	33	14	15	19
9	11	8.0	384	35	30	33	109	33	28	14	14	16
10	12	8.0	57	30	30	32	45	32	20	13	16	16
11	10	8.5	26	29	30	79	30	28	246	13	41	15
12	8.9	8.9	23	28	30	33	32	32	35	13	139	13
13	8.5	7.8	22	77	30	32	30	37	30	13	23	13
14	19	7.3	18	39	30	33	105	39	29	47	18	98
15	9.8	7.3	16	29	30	32	33	33	29	35	17	28
16	21	23	14	28	30	32	30	28	30	352	16	14
17	41	30	22	28	29	32	30	28	37	148	16	13
18	10	79	10	28	30	32	29	97	29	265	30	13
19	10	9.4	16	26	32	32	28	142	23	25	19	13
20	8.9	7.6	22	103	33	32	28	49	19	19	15	12
21	8.9	7.5	45	665	51	30	29	30	19	30	17	148
22	8.9	7.5	18	41	111	30	28	28	29	17	14	100
23	8.5	8.5	14	33	67	30	28	49	41	35	13	30
24	8.2	25	126	310	565	120	28	340	18	199	77	17
25	8.2	7.6	191	67	379	39	33	142	18	29	19	16
26	8.2	7.1	26	37	390	33	129	32	18	100	16	16
27	30	23	23	33	65	32	251	28	18	24	17	15
28	8.9	41	22	37	45	32	41	32	18	19	16	14
29	8.2	30	21	33	---	32	39	29	32	17	55	33
30	8.2	53	19	32	---	30	33	26	17	18	16	205
31	8.4	---	28	32	---	30	---	26	---	20	14	---
TOTAL	508.7	489.4	1411	2783	2287	1366	1478	1603	1299	1646	877	1720
MEAN	16.4	16.3	45.5	89.8	81.7	44.1	49.3	51.7	43.3	53.1	28.3	57.6
MAX	67	79	384	665	565	241	251	340	246	352	139	535
MIN	8.2	7.1	10	25	29	30	28	26	17	13	13	12
CFSM	.75	.74	2.07	4.08	3.71	2.01	2.24	2.35	1.97	2.41	1.29	2.62
IN.	.86	.83	2.39	4.71	3.87	2.31	2.50	2.71	2.20	2.78	1.48	2.92

CAL YR 1978 TOTAL 12916.1 MEAN 35.4 MAX 680 MIN 7.1 CFSM 1.61 IN 21.84
WTR YR 1979 TOTAL 17476.1 MEAN 47.9 MAX 665 MIN 7.1 CFSM 2.18 IN 29.55

CHESTER CREEK BASIN

01477000 CHESTER CREEK NEAR CHESTER, PA

LOCATION.--Lat 39°52'08", long 75°24'31", Delaware County, Hydrologic Unit 02040202, on right bank 30 ft (9 m) downstream from Dutton Mill Bridge and 3 mi (5 km) northwest of Chester.

DRAINAGE AREA.--61.1 mi² (158.2 km²).

PERIOD OF RECORD.--August 1931 to current year. Monthly discharges only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR PA-72: 1971.

GAGE.--Water-stage recorder. Datum of gage is 23.41 ft (7.135 m) Penn Central Railroad datum. Prior to June 27, 1966, water-stage recorder at site 50 ft (15 m) upstream and June 28, 1966 to Oct. 4, 1967, nonrecording gage 150 ft (46 m) upstream, all at same datum.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--48 years, 86.0 ft³/s (2.436 m³/s), 19.12 in/yr (486 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,000 ft³/s (595 m³/s) Sept. 13, 1971, gage height, 24.59 ft (7.495 m), from floodmark, from rating curve extended above 2,400 ft³/s (68.0 m³/s) on basis of contracted-opening measurement at gage height 13.57 ft (4.136 m) and slope-area measurement of peak flow; minimum, 0.3 ft³/s (0.008 m³/s) Aug. 7, 1934, gage height, 0.28 ft (0.085 m); minimum daily, 6.5 ft³/s (0.18 m³/s) Sept. 25, 1941.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,400 ft³/s (39.6 m³/s) and maximum(*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Dec. 9	1045	1,480	41.9	6.44	1.963	Feb. 25	0200	3,250	92.0	9.63	2.935
Dec. 25	0300	1,460	41.3	6.40	1.951	Feb. 26	0515	3,810	108	10.43	3.179
Jan. 8	0200	1,880	53.2	7.26	2.213	May 24	0115	2,170	61.5	7.81	2.380
Jan. 21	0845	3,210	90.9	9.56	2.914	Sept. 6	0500	4,540	129	11.43	3.484
Jan. 24	1945	3,210	90.9	9.57	2.917	Sept. 30	0800	*6,570	186	*13.77	4.197
Feb. 24	0715	2,830	80.1	8.93	2.722						

Minimum discharge, 42 ft³/s (1.19 m³/s) Oct. 9, 10, gage height, 2.96 ft (0.902 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	51	75	131	136	342	133	119	110	198	75	50
2	56	51	56	645	123	321	141	112	110	87	83	66
3	48	51	50	363	116	276	157	110	230	77	209	54
4	50	51	146	112	116	235	165	114	383	75	131	47
5	53	50	246	97	110	252	193	110	161	83	70	108
6	67	50	77	93	101	605	141	99	136	70	61	1770
7	51	51	58	230	108	389	126	99	119	67	60	240
8	47	51	61	1070	110	252	123	97	108	61	58	62
9	47	50	793	219	105	214	276	91	103	61	53	68
10	47	50	321	128	101	198	383	93	99	61	51	66
11	47	50	112	112	101	356	161	91	376	61	50	66
12	48	48	95	103	99	209	186	85	161	58	240	68
13	50	50	85	123	110	180	144	112	112	58	153	82
14	63	51	79	193	100	189	408	126	105	61	70	130
15	63	53	74	114	100	165	204	103	97	101	60	180
16	50	60	72	97	100	149	149	89	93	161	55	112
17	133	68	74	95	100	149	139	79	95	376	51	103
18	63	153	72	93	105	146	131	144	95	131	56	60
19	56	67	70	85	100	141	123	264	87	85	70	60
20	53	56	68	139	150	139	121	141	85	70	55	55
21	51	53	128	2340	198	136	119	101	83	198	55	79
22	50	51	83	356	270	136	116	95	87	85	55	705
23	50	50	68	165	198	136	116	108	123	79	50	210
24	51	61	121	1110	1350	396	114	1260	87	79	93	121
25	51	53	615	751	1990	415	126	551	81	67	75	105
26	55	50	116	270	1990	188	258	276	77	72	85	99
27	72	55	93	214	530	161	451	141	70	74	58	95
28	56	83	77	188	402	146	193	133	72	60	68	91
29	51	75	72	184	---	144	149	123	75	58	58	110
30	50	204	70	157	---	141	128	114	87	141	50	2080
31	51	---	77	144	---	136	---	108	---	307	50	---
TOTAL	1765	1897	4204	10121	9119	7033	5334	5288	3707	3222	2416	7302
MEAN	56.9	63.2	136	326	326	227	178	171	124	104	77.9	243
MAX	133	204	793	2340	1990	605	451	1260	383	376	240	2080
MIN	47	48	50	85	99	136	114	79	70	58	50	47
CFSM	.93	1.03	2.23	5.34	5.34	3.72	2.91	2.80	2.03	1.70	1.28	3.98
IN.	1.07	1.15	2.56	6.16	5.55	4.28	3.25	3.22	2.26	1.96	1.47	4.45

CAL YR 1978 TOTAL 52524 MEAN 144 MAX 2850 MIN 45 CFSM 2.36 IN 31.98
WTR YR 1979 TOTAL 61408 MEAN 168 MAX 2340 MIN 47 CFSM 2.75 IN 37.39

01477050 DELAWARE RIVER AT CHESTER, PA

LOCATION.--Lat 39°50'12", long 75°22'00", Delaware County, Hydrologic Unit 02040202, water-quality recorder located at auxiliary tidal-gaging station at end of Reynolds Aluminum Company pier, 0.5 mi (0.8 km) downstream from Chester Creek in Chester.

DRAINAGE AREA.--10,300 mi^2 (26,700 km^2).

PERIOD OF RECORD.--December 1961 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: January 1968 to current year.
WATER TEMPERATURES: December 1961 to current year.
DISSOLVED OXYGEN: December 1961 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 5,900 micromhos Oct. 7, 1965; minimum, 111 micromhos Apr. 26, 27, 1972.
pH: Maximum, 8.7 Sept. 13, 14, 1971; minimum, 5.5 Dec. 10, 11, 1969.
WATER TEMPERATURES: Maximum, 33.0°C July 21, 1977; minimum, freezing point on many days during winter months.
DISSOLVED OXYGEN: Maximum, 13.5 mg/L Apr. 20, 1979; minimum, 0.0 mg/L on many days.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)
APR 28...	1230	184	7.4	13.5	20	63	39	16	5.6	13	2.0	29

DATE	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)
APR 28...	0	24	1.8	34	19	124	1.3	.05	1.3	.4	.75	160

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN,TOT IN BOTTOM MATERIAL (MG/KG AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)
APR 28...	.25	1.0	9200	2.3	9200	.180	.05	1600	7	10	80

DATE	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)
APR 28...	10	70	34000	210	630	.71	2	220	3.6	32	1.3

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
APR 28...	100	.0	90	31	130	120	2.0	.0	.0	.0	0

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	611	405	484	---	---	---	861	512	668			
2	593	410	479	1030	583	776	---	---	---			
3	718	416	520	991	529	734	---	---	---			
4	936	451	616	1150	563	783	---	---	---			
5	928	463	647	1180	577	833	---	---	---			
6	942	485	663	1120	626	846	---	---	---			
7	766	484	613	1130	611	840	582	439	514			
8	721	471	565	1180	604	834	573	428	506			
9	760	456	555	1090	622	873	528	332	436			
10	670	452	548	1190	595	830	379	308	348			
11	901	451	566	1110	654	871	361	314	339			
12	1160	479	682	1150	633	881	339	296	316			
13	1060	516	718	1320	652	944	319	288	303			
14	1160	518	771	1450	668	970	---	---	---			
15	988	508	716	1180	715	920	---	---	---			
16	1220	548	807	1250	704	938	---	---	---			
17	1370	543	857	1700	733	1030	---	---	---			
18	1180	558	857	1280	656	977	283	274	278			
19	1070	582	800	999	615	831	285	271	277			
20	1060	566	772	1070	605	820	309	274	283			
21	1120	619	817	1100	659	864	297	287	292			
22	957	572	764	1110	648	882	---	---	---			
23	959	556	742	1250	629	917	---	---	---			
24	1150	554	777	1250	692	916	---	---	---			
25	1150	597	834	990	591	778	---	---	---			
26	945	574	746	960	546	761	---	---	---			
27	881	530	674	1130	585	798	---	---	---			
28	---	---	---	1250	584	806	---	---	---			
29	---	---	---	980	545	708	---	---	---			
30	---	---	---	1020	524	723	---	---	---			
31	---	---	---	---	---	---	---	---	---			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	247	221	235	268	238	253
2				---	---	---	246	218	231	274	228	251
3				---	---	---	247	217	227	279	220	251
4				---	---	---	239	212	225	268	236	251
5				---	---	---	239	207	221	276	238	254
6				---	---	---	242	211	224	277	240	254
7				---	---	---	246	215	230	276	245	257
8				---	---	---	251	218	228	298	241	272
9				---	---	---	248	218	233	295	257	280
10				---	---	---	248	221	237	292	258	274
11				---	---	---	259	226	243	289	254	269
12				---	---	---	263	235	248	292	253	273
13				---	---	---	260	235	246	294	258	273
14				---	---	---	256	226	242	301	256	277
15				---	---	---	251	223	234	297	255	278
16				---	---	---	244	224	234	298	266	280
17				---	---	---	247	220	233	295	256	277
18				---	---	---	242	214	227	302	265	283
19				---	---	---	245	211	223	306	265	287
20				---	---	---	239	212	223	307	270	298
21				---	---	---	238	212	225	315	278	297
22				---	---	---	243	210	223	333	281	301
23				229	210	220	245	211	226	322	286	306
24				244	212	224	248	215	230	324	261	292
25				237	209	221	255	215	234	319	274	294
26				241	217	229	255	224	236	307	251	277
27				258	225	239	253	215	231	284	246	266
28				250	224	237	245	224	233	283	230	253
29				262	231	240	258	224	242	254	203	227
30				250	229	238	266	237	248	233	187	214
31				256	225	235	---	---	---	218	186	200
MONTH				262	209	231	266	207	232	333	186	268

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	222	176	192	319	273	297	337	315	327	567	360	433
2	217	176	192	328	291	308	339	321	329	653	370	458
3	---	---	---	333	298	313	336	319	328	568	373	449
4	---	---	---	349	306	322	336	313	324	582	373	445
5	---	---	---	341	308	324	334	315	325	616	378	482
6	---	---	---	356	305	335	339	317	327	976	334	502
7	---	---	---	364	325	339	343	316	328	414	341	376
8	---	---	---	360	327	341	---	---	---	391	313	350
9	---	---	---	361	331	344	---	---	---	358	303	333
10	---	---	---	364	337	346	---	---	---	343	302	324
11	---	---	---	381	342	352	---	---	---	335	298	317
12	---	---	---	388	325	362	---	---	---	331	297	314
13	---	---	---	370	346	361	---	---	---	335	298	316
14	287	245	266	---	---	---	---	---	---	348	296	318
15	288	251	269	---	---	---	---	---	---	317	292	304
16	301	254	271	---	---	---	370	340	349	321	284	301
17	294	251	272	---	---	---	376	326	348	327	290	306
18	296	252	275	---	---	---	409	329	358	329	294	310
19	302	240	262	---	---	---	398	331	358	329	286	302
20	271	236	254	---	---	---	425	336	369	320	290	305
21	277	244	263	---	---	---	458	339	398	338	302	317
22	294	245	270	---	---	---	474	348	399	333	282	305
23	285	249	268	329	310	320	486	352	416	317	292	304
24	294	252	272	335	307	321	518	359	428	330	286	307
25	298	255	277	333	301	318	514	356	422	329	286	308
26	306	260	278	332	304	318	484	352	412	319	292	305
27	297	263	281	328	306	318	508	360	421	328	302	316
28	310	268	287	341	310	323	497	360	419	336	314	322
29	321	276	294	337	313	326	508	366	433	331	317	322
30	317	279	298	340	315	327	510	361	423	337	259	308
31	---	---	---	339	307	325	500	361	422	---	---	---
MONTH	321	176	265	388	273	329	518	313	376	976	259	345

PH (UNITS), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.8	6.7	6.8	---	---	---	6.7	6.7	6.7			
2	6.8	6.7	6.7	6.7	6.6	6.7	---	---	---			
3	6.8	6.7	6.7	6.7	6.7	6.7	---	---	---			
4	6.8	6.7	6.7	6.7	6.6	6.7	---	---	---			
5	6.8	6.7	6.7	6.8	6.6	6.7	---	---	---			
6	6.8	6.7	6.7	6.7	6.6	6.7	---	---	---			
7	6.7	6.7	6.7	6.7	6.6	6.7	6.7	6.6	6.7			
8	6.7	6.7	6.7	6.7	6.6	6.7	6.7	6.7	6.7			
9	6.7	6.7	6.7	6.7	6.6	6.7	6.7	6.7	6.7			
10	6.9	6.7	6.8	6.7	6.6	6.7	6.8	6.6	6.7			
11	6.9	6.8	6.8	6.7	6.6	6.7	6.9	6.7	6.8			
12	6.9	6.8	6.8	6.7	6.6	6.7	6.9	6.8	6.8			
13	6.9	6.8	6.8	6.7	6.7	6.7	6.9	6.8	6.8			
14	6.8	6.8	6.8	6.8	6.7	6.7	---	---	---			
15	6.8	6.8	6.8	6.7	6.5	6.7	---	---	---			
16	6.8	6.8	6.8	6.6	6.5	6.6	---	---	---			
17	6.8	6.7	6.8	6.7	6.6	6.6	---	---	---			
18	6.8	6.7	6.8	6.8	6.6	6.7	7.0	6.6	6.9			
19	6.9	6.7	6.8	6.7	6.6	6.6	6.9	6.9	6.9			
20	6.9	6.8	6.9	6.7	6.6	6.6	6.9	6.8	6.9			
21	6.9	6.8	6.9	6.7	6.6	6.6	6.9	6.9	6.9			
22	6.9	6.8	6.9	6.7	6.5	6.6	---	---	---			
23	6.9	6.8	6.9	6.7	6.6	6.7	---	---	---			
24	6.9	6.8	6.9	6.7	6.6	6.7	---	---	---			
25	6.9	6.8	6.9	6.7	6.7	6.7	---	---	---			
26	6.9	6.9	6.9	6.7	6.7	6.7	---	---	---			
27	6.9	6.9	6.9	6.8	6.7	6.7	---	---	---			
28	---	---	---	6.8	6.6	6.7	---	---	---			
29	---	---	---	6.8	6.7	6.7	---	---	---			
30	---	---	---	6.8	6.7	6.7	---	---	---			
31	---	---	---	---	---	---	---	---	---			
MONTH	6.9	6.7	6.8	6.8	6.5	6.7	7.0	6.6	6.8			

DELAWARE RIVER BASIN

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	7.0	6.8	6.8	6.9	6.7	6.8
2				---	---	---	6.8	6.8	6.8	6.9	6.8	6.8
3				---	---	---	6.8	6.7	6.8	6.9	6.8	6.8
4				---	---	---	6.8	6.7	6.8	6.9	6.8	6.8
5				---	---	---	6.8	6.8	6.8	6.9	6.8	6.8
6				---	---	---	7.1	6.8	6.9	6.9	6.8	6.8
7				---	---	---	7.0	6.8	6.9	6.8	6.8	6.8
8				---	---	---	7.0	6.9	6.9	6.9	6.8	6.8
9				---	---	---	7.0	6.9	6.9	6.9	6.8	6.8
10				---	---	---	7.0	6.9	7.0	6.9	6.8	6.8
11				---	---	---	7.0	6.9	6.9	6.9	6.7	6.8
12				---	---	---	6.9	6.9	6.9	6.9	6.8	6.8
13				---	---	---	7.0	6.9	6.9	6.8	6.7	6.8
14				---	---	---	7.0	6.9	6.9	6.8	6.7	6.7
15				---	---	---	6.9	6.9	6.9	6.8	6.7	6.7
16				---	---	---	7.0	6.9	6.9	6.8	6.7	6.7
17				---	---	---	7.1	6.9	7.0	6.8	6.8	6.8
18				---	---	---	7.1	6.9	7.0	6.8	6.8	6.8
19				---	---	---	7.0	6.9	7.0	6.9	6.8	6.8
20				---	---	---	7.0	6.9	7.0	6.9	6.8	6.8
21				---	---	---	7.0	6.9	6.9	6.8	6.8	6.8
22				---	---	---	7.0	6.9	6.9	6.9	6.8	6.8
23				6.8	6.8	6.8	7.0	6.8	6.9	6.8	6.8	6.8
24				7.0	6.8	6.8	6.9	6.8	6.8	6.8	6.7	6.8
25				6.9	6.8	6.8	6.9	6.8	6.8	6.9	6.8	6.8
26				7.0	6.8	6.8	6.8	6.8	6.8	6.9	6.8	6.8
27				7.0	6.8	6.9	6.9	6.8	6.8	7.0	6.9	7.0
28				6.9	6.9	6.9	6.8	6.7	6.8	7.0	6.9	6.9
29				7.0	6.8	6.9	6.8	6.7	6.8	7.0	6.9	6.9
30				6.9	6.8	6.9	6.8	6.7	6.8	6.9	6.8	6.9
31				6.8	6.8	6.8	---	---	---	6.9	6.7	6.8
MONTH				7.0	6.8	6.8	7.1	6.7	6.9	7.0	6.7	6.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.8	6.7	6.7	6.5	6.5	6.5	6.7	6.7	6.7	6.7	6.6	6.6
2	6.7	6.7	6.7	6.5	6.4	6.5	6.7	6.7	6.7	6.7	6.6	6.6
3	---	---	---	6.6	6.4	6.5	6.7	6.7	6.7	6.7	6.6	6.6
4	---	---	---	6.6	6.4	6.5	6.7	6.7	6.7	6.7	6.6	6.6
5	---	---	---	6.6	6.4	6.5	6.7	6.6	6.7	6.7	6.3	6.6
6	---	---	---	6.9	6.5	6.7	6.7	6.6	6.7	6.8	6.7	6.7
7	---	---	---	7.1	6.9	7.0	6.7	6.7	6.7	6.7	6.6	6.7
8	---	---	---	7.1	7.0	7.1	---	---	---	6.6	6.6	6.6
9	---	---	---	7.1	7.0	7.1	---	---	---	6.6	6.6	6.6
10	---	---	---	7.1	7.0	7.1	---	---	---	6.6	6.5	6.6
11	---	---	---	7.1	7.0	7.0	---	---	---	6.6	6.6	6.6
12	---	---	---	7.1	6.9	7.0	---	---	---	6.6	6.5	6.6
13	---	---	---	7.2	7.1	7.2	---	---	---	6.6	6.5	6.6
14	6.6	6.5	6.5	---	---	---	---	---	---	6.8	6.6	6.6
15	6.6	6.5	6.6	---	---	---	---	---	---	6.7	6.6	6.7
16	6.6	6.5	6.6	---	---	---	6.7	6.6	6.7	6.7	6.6	6.6
17	6.6	6.5	6.6	---	---	---	6.8	6.7	6.7	6.7	6.6	6.6
18	6.6	6.5	6.6	---	---	---	6.7	6.6	6.7	6.7	6.6	6.6
19	6.6	6.2	6.5	---	---	---	6.7	6.6	6.7	6.7	6.3	6.6
20	6.4	6.4	6.4	---	---	---	6.7	6.6	6.7	6.7	6.5	6.6
21	6.5	6.4	6.4	---	---	---	6.7	6.4	6.6	6.6	6.5	6.6
22	6.5	6.4	6.4	---	---	---	6.6	6.5	6.6	6.7	6.5	6.6
23	6.5	6.4	6.4	6.8	6.7	6.8	6.6	6.5	6.6	6.6	6.5	6.5
24	6.5	6.4	6.4	6.8	6.7	6.7	6.6	6.5	6.6	6.6	6.4	6.5
25	6.5	6.4	6.4	6.8	6.7	6.7	6.6	6.5	6.6	6.5	6.4	6.5
26	6.8	6.2	6.5	6.8	6.7	6.7	6.6	6.5	6.5	6.5	6.3	6.4
27	6.6	6.5	6.5	6.8	6.7	6.7	6.7	6.5	6.6	6.8	6.4	6.6
28	6.6	6.5	6.5	6.7	6.7	6.7	6.7	6.6	6.7	6.9	6.8	6.8
29	6.5	6.5	6.5	6.7	6.7	6.7	6.8	6.7	6.7	6.8	6.8	6.8
30	6.5	6.5	6.5	6.7	6.7	6.7	6.7	6.6	6.7	7.3	6.8	6.8
31	---	---	---	6.7	6.7	6.7	6.7	6.6	6.7	---	---	---
MONTH	6.8	6.2	6.5	7.2	6.4	6.8	6.8	6.4	6.7	7.3	6.3	6.6

DELAWARE RIVER BASIN

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.5	21.5	22.0	---	---	---	9.5	9.0	9.0			
2	22.0	21.0	21.5	16.0	15.5	16.0	---	---	---			
3	22.0	21.0	21.5	16.5	15.5	16.0	---	---	---			
4	21.5	20.5	21.0	16.0	15.0	15.5	---	---	---			
5	21.5	20.5	21.0	16.0	15.0	15.5	---	---	---			
6	22.0	20.5	21.0	16.5	15.0	15.5	---	---	---			
7	21.0	19.5	20.5	16.0	15.0	15.5	10.0	9.5	9.5			
8	20.0	18.5	19.5	15.5	15.0	15.5	10.5	9.5	10.0			
9	19.5	18.0	18.5	15.5	14.5	15.0	10.5	9.0	10.0			
10	19.5	18.0	18.5	15.5	14.5	15.0	9.0	7.5	8.0			
11	20.0	18.5	19.0	15.5	14.5	15.0	8.0	6.0	7.0			
12	20.5	18.5	19.5	15.0	14.5	15.0	7.5	6.0	7.0			
13	21.0	18.5	20.0	15.0	14.0	14.5	7.0	6.0	6.5			
14	20.0	19.0	19.5	15.5	14.0	15.0	---	---	---			
15	19.0	18.0	18.5	15.5	14.5	15.0	---	---	---			
16	19.0	18.0	18.0	15.0	14.0	14.5	---	---	---			
17	18.5	17.5	18.0	15.0	14.0	14.0	---	---	---			
18	18.5	17.0	17.5	15.5	14.0	14.5	6.0	5.0	5.5			
19	18.0	17.0	17.5	14.5	13.5	14.0	5.5	4.0	5.0			
20	18.0	17.0	17.5	14.5	13.5	13.5	5.5	4.0	5.0			
21	18.5	16.5	17.5	14.0	13.0	13.0	5.5	4.5	5.0			
22	18.5	16.5	17.5	13.0	12.5	12.5	---	---	---			
23	19.0	17.0	17.5	12.5	12.0	12.5	---	---	---			
24	18.0	16.0	17.0	12.5	11.5	12.0	---	---	---			
25	17.5	16.0	16.5	12.0	11.0	11.5	---	---	---			
26	17.5	16.5	17.0	11.5	10.5	11.0	---	---	---			
27	17.5	16.0	17.0	10.5	9.5	10.0	---	---	---			
28	---	---	---	10.0	9.0	9.5	---	---	---			
29	---	---	---	10.0	9.0	9.5	---	---	---			
30	---	---	---	10.0	8.5	9.5	---	---	---			
31	---	---	---	---	---	---	---	---	---			
MONTH	22.5	16.0	19.0	16.5	8.5	13.5	10.5	4.0	7.5			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	13.0	11.5	12.5	18.5	16.5	17.5
2				---	---	---	12.5	11.5	12.0	19.0	16.5	17.5
3				---	---	---	17.0	11.5	12.0	19.5	17.5	18.5
4				---	---	---	11.5	11.0	11.5	19.5	18.5	19.0
5				---	---	---	12.5	11.0	11.5	19.5	18.5	19.0
6				---	---	---	12.0	10.0	11.0	20.0	18.0	19.0
7				---	---	---	11.0	9.5	10.5	21.0	18.5	19.5
8				---	---	---	11.0	9.5	10.0	20.5	19.5	20.0
9				---	---	---	10.5	9.5	10.0	21.5	19.0	20.5
10				---	---	---	10.5	8.5	10.0	22.0	20.0	21.0
11				---	---	---	11.5	10.0	10.5	22.0	20.5	21.5
12				---	---	---	11.5	10.5	11.0	21.5	21.0	21.0
13				---	---	---	11.0	9.5	10.5	21.5	21.0	21.0
14				---	---	---	10.5	9.5	10.0	21.5	21.0	21.0
15				---	---	---	11.0	9.5	10.0	22.5	20.5	21.5
16				---	---	---	11.0	9.5	10.0	23.0	21.0	22.0
17				---	---	---	11.5	10.0	10.5	22.5	21.0	21.5
18				---	---	---	12.0	10.0	11.0	22.0	20.5	21.5
19				---	---	---	12.5	10.5	11.0	21.5	20.0	21.0
20				---	---	---	13.0	11.0	11.5	21.0	20.0	20.5
21				---	---	---	13.5	12.0	12.5	21.5	20.5	21.0
22				---	---	---	14.0	12.5	13.0	22.5	20.5	21.5
23				9.5	9.0	9.0	15.0	13.0	14.0	22.5	21.0	21.5
24				11.0	9.0	9.5	15.0	13.5	14.0	22.5	21.0	21.5
25				10.5	9.0	10.0	16.0	13.5	15.0	22.5	21.0	21.5
26				10.0	9.0	9.5	16.0	14.5	15.5	22.0	20.0	21.0
27				10.0	8.5	9.5	16.5	15.5	15.5	21.0	19.5	20.0
28				10.5	8.5	9.5	16.0	15.0	15.5	20.5	19.5	20.0
29				11.5	9.5	10.5	17.0	15.0	16.0	20.0	19.0	19.0
30				12.0	10.5	11.0	18.0	15.5	16.5	19.5	19.0	19.0
31				13.0	10.5	12.0	---	---	---	19.5	18.5	19.0
MONTH				13.0	8.5	10.0	18.0	8.5	12.0	23.0	16.5	20.5

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.5	18.5	19.0	26.0	25.0	25.5	31.5	29.5	30.5	29.0	28.0	28.5
2	19.5	18.5	19.0	25.5	24.5	25.0	31.5	30.0	30.5	29.5	28.5	28.5
3	---	---	---	26.0	24.5	25.0	31.5	30.0	30.5	29.0	28.5	28.5
4	---	---	---	25.0	24.5	24.5	31.0	30.0	30.5	30.0	28.5	29.0
5	---	---	---	24.5	23.5	24.0	31.5	30.0	30.5	29.0	27.0	28.0
6	---	---	---	24.0	23.0	23.5	32.0	30.0	31.0	27.0	26.0	26.5
7	---	---	---	24.5	23.0	24.0	30.5	30.0	30.0	27.0	26.0	26.5
8	---	---	---	25.5	24.0	24.5	---	---	---	26.0	25.0	25.5
9	---	---	---	26.0	24.5	25.0	---	---	---	25.5	24.5	25.0
10	---	---	---	25.5	24.5	25.0	---	---	---	25.5	24.5	25.0
11	---	---	---	26.5	24.5	25.5	---	---	---	25.5	24.5	25.0
12	---	---	---	28.0	25.0	26.5	---	---	---	25.5	24.0	25.0
13	---	---	---	28.5	28.0	28.5	---	---	---	25.5	24.5	25.0
14	24.0	22.5	23.0	---	---	---	---	---	---	26.0	24.5	25.0
15	24.5	22.5	23.5	---	---	---	---	---	---	25.5	24.0	24.5
16	25.0	23.0	24.0	---	---	---	26.5	25.5	26.0	24.5	23.5	24.0
17	24.5	23.5	24.0	---	---	---	26.5	25.5	26.0	25.0	23.5	24.0
18	25.5	23.5	24.5	---	---	---	26.0	25.5	25.5	25.0	23.5	24.0
19	25.0	24.0	24.0	---	---	---	26.5	25.5	26.0	24.5	23.0	24.0
20	25.0	23.5	24.5	---	---	---	27.5	25.5	26.0	23.5	22.5	23.0
21	25.5	24.0	24.5	---	---	---	27.0	25.5	26.5	23.0	22.5	23.0
22	25.5	24.0	24.5	---	---	---	27.0	25.5	26.5	23.0	21.5	22.0
23	25.0	24.0	24.5	29.0	28.5	28.5	27.5	26.0	26.5	22.0	20.5	21.0
24	24.5	23.5	24.0	29.5	28.0	29.0	27.5	26.0	27.0	21.0	19.5	20.5
25	24.5	23.5	24.0	30.0	28.5	29.0	28.0	26.5	27.0	20.5	19.5	20.0
26	25.0	23.5	24.0	30.0	29.0	29.5	27.5	27.0	27.0	20.5	19.5	20.0
27	25.0	23.5	24.5	30.0	29.0	29.5	28.0	27.0	27.5	20.5	20.0	20.0
28	25.5	24.0	25.0	30.0	29.0	29.5	29.0	27.0	28.0	21.0	20.0	20.5
29	26.0	24.5	25.0	30.0	29.0	29.5	28.5	27.5	28.0	21.0	20.5	20.5
30	26.5	24.5	25.5	30.0	29.0	29.5	29.5	28.0	28.5	21.0	20.0	20.5
31	---	---	---	31.0	29.0	30.0	29.5	28.0	28.5	---	---	---
MONTH	26.5	18.5	23.5	31.0	23.0	27.0	32.0	25.5	28.0	30.0	19.5	24.0

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	2.4	1.5	1.9	---	---	---	5.0	4.4	4.8			
2	2.3	1.1	1.7	2.8	2.1	2.4	---	---	---			
3	2.4	1.0	1.6	2.4	1.8	2.1	---	---	---			
4	2.6	1.4	1.9	2.4	1.5	1.8	---	---	---			
5	2.4	1.0	1.7	2.4	1.3	1.7	---	---	---			
6	2.1	1.1	1.6	2.0	1.1	1.5	---	---	---			
7	2.1	1.1	1.6	1.7	1.0	1.3	4.4	3.9	4.2			
8	2.6	1.7	2.1	1.9	1.1	1.3	4.4	3.7	4.0			
9	2.9	2.1	2.4	1.9	1.1	1.5	6.1	3.7	4.4			
10	3.0	2.1	2.6	2.0	1.1	1.4	7.0	4.7	5.8			
11	2.9	2.2	2.4	1.6	1.1	1.4	7.9	5.9	6.7			
12	2.9	2.1	2.4	2.1	1.1	1.5	7.7	6.4	7.1			
13	2.8	1.9	2.2	2.7	1.6	2.2	7.6	6.8	7.3			
14	2.6	1.8	2.2	3.0	1.7	2.4	---	---	---			
15	2.5	1.9	2.2	2.8	1.6	2.3	---	---	---			
16	2.7	1.9	2.2	2.9	1.3	2.1	---	---	---			
17	2.6	2.2	2.4	4.2	2.3	3.1	---	---	---			
18	---	---	---	4.7	3.1	3.8	9.8	9.3	9.5			
19	3.0	2.4	2.6	3.9	2.6	3.2	9.7	9.2	9.4			
20	2.7	2.0	2.3	3.9	2.3	3.1	9.5	9.0	9.2			
21	2.9	2.0	2.4	4.1	2.4	3.2	9.2	9.1	9.2			
22	2.6	1.9	2.3	4.6	2.4	3.6	---	---	---			
23	2.5	1.9	2.2	5.2	3.0	4.1	---	---	---			
24	3.0	2.1	2.5	5.1	3.6	4.4	---	---	---			
25	3.9	2.2	2.9	4.8	3.8	4.4	---	---	---			
26	3.5	2.7	3.1	5.1	4.1	4.6	---	---	---			
27	3.4	2.9	3.1	5.8	4.4	5.2	---	---	---			
28	---	---	---	6.2	4.6	5.4	---	---	---			
29	---	---	---	5.5	4.6	5.0	---	---	---			
30	---	---	---	6.1	4.7	5.1	---	---	---			
31	---	---	---	---	---	---	---	---	---			
MONTH	3.9	1.0	2.3	6.2	1.0	2.9	9.8	3.7	6.8			

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	6.6	5.7	5.8	7.0	4.4	5.5
2				---	---	---	6.2	5.9	6.0	7.1	2.8	4.7
3				---	---	---	6.2	5.6	5.8	6.0	3.3	4.5
4				---	---	---	6.6	5.7	6.0	6.0	3.0	4.0
5				---	---	---	6.4	5.9	6.2	5.5	2.9	3.8
6				---	---	---	7.5	6.3	6.8	6.2	2.7	4.1
7				---	---	---	---	---	---	5.7	2.6	3.9
8				---	---	---	---	---	---	5.5	2.3	3.7
9				---	---	---	---	---	---	4.9	2.5	3.5
10				---	---	---	---	---	---	4.7	2.5	3.4
11				---	---	---	---	---	---	3.9	2.4	3.0
12				---	---	---	---	---	---	2.7	2.1	2.4
13				---	---	---	---	---	---	3.2	2.6	2.8
14				---	---	---	---	---	---	2.6	2.1	2.3
15				---	---	---	---	---	---	3.7	2.0	2.6
16				---	---	---	7.3	6.1	6.8	3.3	1.5	2.2
17				---	---	---	8.7	5.8	7.1	2.5	1.2	1.9
18				---	---	---	11.3	5.6	8.1	2.1	1.7	1.9
19				---	---	---	9.4	5.4	7.0	2.2	1.9	2.0
20				---	---	---	13.5	5.5	8.7	3.0	1.8	2.2
21				---	---	---	13.3	5.9	9.0	2.2	1.7	1.9
22				---	---	---	11.2	5.6	8.4	2.8	1.7	2.1
23				8.0	7.9	7.9	12.2	6.6	9.1	2.6	1.4	1.9
24				8.6	7.5	7.9	9.2	5.1	6.3	2.3	1.6	1.9
25				8.1	7.3	7.7	10.7	5.6	7.9	2.5	1.5	1.9
26				7.6	7.0	7.2	9.3	5.3	7.2	1.7	1.2	1.4
27				7.5	7.0	7.2	8.1	5.0	6.2	2.4	1.1	1.7
28				7.1	6.7	7.0	6.9	4.5	5.8	2.6	1.3	1.9
29				7.3	6.5	6.8	8.1	4.7	6.2	3.0	1.1	1.8
30				6.7	6.0	6.5	7.2	3.7	5.5	2.7	1.5	2.0
31				6.2	5.8	6.0	---	---	---	2.8	1.3	1.8
MONTH				8.6	5.8	7.1	13.5	3.7	7.0	7.1	1.1	2.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	2.5	1.6	1.9	3.0	.3	1.2	2.9	.0	1.0	3.3	1.3	2.2
2	1.7	1.4	1.5	2.0	.1	.9	1.8	.0	.5	3.7	1.7	2.4
3	---	---	---	3.2	.2	1.5	1.4	.0	.6	3.3	2.2	2.8
4	---	---	---	.8	.0	.3	1.7	.0	.7	3.1	1.7	2.2
5	---	---	---	1.2	.0	.7	2.7	.0	1.0	3.9	1.1	2.3
6	---	---	---	3.1	.0	1.3	2.4	.0	.8	6.3	4.0	5.5
7	---	---	---	3.6	.1	1.6	1.4	.0	1.2	4.7	2.3	3.4
8	---	---	---	3.0	.0	1.4	---	---	---	2.4	1.5	2.0
9	---	---	---	2.6	.0	1.1	---	---	---	2.6	1.4	1.9
10	---	---	---	2.0	.0	.6	---	---	---	2.4	1.2	1.8
11	---	---	---	2.1	.0	.9	---	---	---	2.4	1.2	1.8
12	---	---	---	1.5	.0	.6	---	---	---	2.6	.8	1.6
13	---	---	---	1.2	.0	.6	---	---	---	2.7	.8	1.7
14	5.3	2.0	3.7	---	---	---	---	---	---	5.4	2.1	3.4
15	4.7	1.3	2.6	---	---	---	---	---	---	4.7	2.8	3.6
16	4.0	1.3	2.5	---	---	---	3.1	1.0	2.2	4.0	2.4	3.1
17	3.3	1.7	2.4	---	---	---	3.2	.1	1.4	2.7	2.0	2.3
18	5.1	1.5	3.1	---	---	---	1.5	.8	1.2	3.2	1.8	2.5
19	2.8	.9	1.7	---	---	---	4.0	1.3	2.3	4.9	2.4	3.4
20	4.1	.9	2.2	---	---	---	4.0	1.3	2.4	5.3	3.4	4.1
21	3.1	.7	1.7	---	---	---	2.0	1.1	1.6	4.7	3.9	4.2
22	3.7	.9	1.9	---	---	---	2.1	.8	1.5	5.2	3.9	4.5
23	3.5	1.0	2.1	.9	.0	.5	2.5	.9	1.8	5.4	3.7	4.6
24	1.5	.6	1.1	1.6	.1	.8	2.5	1.5	2.1	5.8	4.4	5.2
25	2.5	.4	1.4	2.8	.0	1.0	2.4	1.6	2.0	5.8	4.6	5.2
26	5.6	.7	2.5	1.4	.0	.5	2.2	1.3	1.7	4.8	4.1	4.4
27	4.3	.6	2.2	2.2	.0	.8	2.7	1.3	2.0	4.5	3.5	3.9
28	4.1	.9	2.2	2.2	.0	.9	2.9	1.8	2.3	4.2	3.1	3.6
29	3.8	.7	1.9	.5	.0	.3	3.5	1.8	2.5	3.6	2.5	3.1
30	2.5	.6	1.3	1.4	.0	.7	3.3	1.5	2.1	5.7	2.8	4.0
31	---	---	---	3.2	.0	1.1	3.0	1.3	1.8	---	---	---
MONTH	5.6	.4	2.1	3.6	.0	.9	4.0	.0	1.6	6.3	.8	3.2

01480300 WEST BRANCH BRANDYWINE CREEK NEAR HONEY BROOK, PA

LOCATION.--Lat 40°04'22", long 75°51'40", Chester County, Hydrologic Unit 02040205, at right upstream end of bridge on Legislative Route 15185, at Birdell, 0.4 mi (0.6 km) downstream from Two Log Run, and 3.0 mi (4.8 km) southeast of Honey Brook.

DRAINAGE AREA.--18.7 mi² (48.4 km²).

PERIOD OF RECORD.--June 1960 to current year.

REVISED RECORDS.--WDR PA-73: 1972(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 591.20 ft (180.198 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--19 years, 26.3 ft³/s (0.745 m³/s), 19.08 in/yr (485 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,140 ft³/s (231 m³/s) June 22, 1972, gage height, 11.41 ft (3.478 m), from rating curve extended above 1,900 ft³/s (53.8 m³/s) on basis of slope-area measurement of peak flow; minimum, 1.7 ft³/s (0.048 m³/s) Aug. 15, 16, 17, 18, 19, 1963; minimum gage height, 1.07 ft (0.326 m) Feb. 21, 22, 1977, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum(*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Oct. 6	0900	560	15.9	5.90	1.798	Feb. 25	0215	833	23.6	6.81	2.076
Dec. 9	1245	632	17.9	6.14	1.871	Feb. 26	0715	1,060	30.0	7.39	2.252
Dec. 25	0600	593	16.8	6.01	1.832	June 2	1900	740	21.0	6.50	1.981
Jan. 2	1800	620	17.6	6.10	1.859	June 23	0100	725	20.5	6.45	1.966
Jan. 8	0500	722	20.4	6.40	1.951	Sept. 6	0430	972	27.5	7.18	2.188
Jan. 21	1730	1,200	34.0	7.67	2.338	Sept. 22	0530	2,170	61.5	8.87	2.704
Jan. 24	1815	*2,670	75.6	*9.37	2.856						

Minimum discharge, 9.8 ft³/s (0.28 m³/s) Aug. 9, 10, gage height, 1.24 ft (0.378 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	14	33	109	25	71	19	22	24	20	13	12
2	12	14	20	331	24	68	25	20	222	18	17	11
3	12	14	19	103	22	53	30	22	130	16	16	11
4	13	14	109	26	22	50	35	25	109	17	13	11
5	13	14	109	23	21	91	48	22	48	18	12	22
6	173	13	26	24	21	107	23	20	44	15	12	372
7	19	13	20	50	21	59	19	19	32	14	11	27
8	15	13	41	420	22	42	19	19	28	14	11	18
9	14	13	359	56	21	33	55	18	25	14	11	16
10	14	13	109	31	20	38	80	17	24	14	11	15
11	14	13	28	32	20	133	26	17	26	14	16	15
12	13	13	24	22	19	40	27	17	24	13	72	14
13	13	13	24	27	19	32	27	21	21	13	30	13
14	15	13	22	118	18	33	91	31	20	15	15	35
15	17	13	20	34	18	25	45	22	19	16	13	18
16	14	15	20	24	17	23	35	19	18	14	12	14
17	24	16	20	22	17	24	32	17	19	14	13	13
18	19	68	19	20	17	23	27	23	19	13	13	13
19	16	17	18	19	17	21	25	46	18	13	14	13
20	15	15	18	22	16	21	24	29	17	12	13	13
21	15	14	69	749	16	20	23	22	17	31	12	59
22	14	14	24	156	33	20	23	21	187	16	12	728
23	14	14	20	74	57	20	22	32	171	14	11	45
24	14	17	34	980	293	48	22	183	24	13	13	26
25	14	14	276	314	707	61	22	65	21	12	18	23
26	14	14	42	66	641	28	24	35	19	13	12	21
27	19	14	25	57	149	22	54	27	19	27	28	20
28	19	17	20	47	89	21	36	26	18	13	24	19
29	15	20	19	42	---	21	28	32	18	13	16	20
30	15	93	18	34	---	20	23	26	17	17	18	19
31	14	---	24	28	---	20	---	27	---	14	13	---
TOTAL	624	562	1629	4060	2382	1288	989	942	1398	480	515	1656
MEAN	20.1	18.7	52.5	131	85.1	41.5	33.0	30.4	46.6	15.5	16.6	55.2
MAX	173	93	359	980	707	133	91	183	222	31	72	728
MIN	12	13	18	19	16	20	19	17	17	12	11	11
CFSM	1.08	1.00	2.81	7.01	4.55	2.22	1.77	1.63	2.49	.83	.89	2.95
IN.	1.24	1.12	3.24	8.08	4.74	2.56	1.97	1.87	2.78	.95	1.02	3.29

CAL YR 1978 TOTAL 14892.8 MEAN 40.8 MAX 1390 MIN 8.6 CFSM 2.18 IN 29.62
WTR YR 1979 TOTAL 16525.0 MEAN 45.3 MAX 980 MIN 11 CFSM 2.42 IN 32.87

01480500 WEST BRANCH BRANDYWINE CREEK AT COATESVILLE, PA

LOCATION.--Lat 39°59'08", long 75°49'40", Chester County, Hydrologic Unit 02040205, on right bank at city limits of Coatesville, 1,200 ft (366 m) upstream from bridge on old Lincoln Highway, and 0.6 mi (1.0 km) downstream from Rock Run.

DRAINAGE AREA.--45.8 mi² (118.6 km²).

PERIOD OF PERIOD.--October 1943 to December 1951, January 1970 to current year.

GAGE.--Water-stage recorder and V-notch sharp crested weir. Altitude of gage is 305 ft (93.0 m), from topographic map. Sept. 10, 1943 to Dec. 31, 1951, nonrecording gage at site 1,100 ft (335 m) downstream at different datum.

REMARKS.--Records good. Diversion above station from Rock Run Reservoir, capacity, 320 mil gal (1.211 hm³) 2.6 mi (4.2 km) upstream, for municipal supply of city of Coatesville.

AVERAGE DISCHARGE.--17 years (1943-51, 1970-79), 75.2 ft³/s (2.130 m³/s), 22.30 in/yr (566 mm/yr), adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,100 ft³/s (229 m³/s) June 29, 1973, gage height, 10.08 ft (3.072 m), from rating curve extended above 2,200 ft³/s (62.3 m³/s) on basis of slope-area measurement at gage height 9.92 ft (3.024 m); minimum observed, 4.6 ft³/s (0.13 m³/s) Sept. 10, 1944, gage height, 0.70 ft (0.213 m), site and datum then in use; minimum daily, 9.6 ft³/s (0.27 m³/s) Sept. 12, 1949.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 9, 1942 reached a stage of 12.3 ft (3.75 m), site and datum then in use, discharge, 8,600 ft³/s (244 m³/s), by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s (19.8 m³/s) and maximum(*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Dec. 9	0830	934	26.5	5.83	1.777	June 2	1230	704	19.9	5.52	1.682
Jan. 8	1030	1,050	29.7	5.97	1.820	June 3	0745	1,600	45.3	6.48	1.975
Jan. 21	1515	2,220	62.9	6.92	2.109	July 21	1100	1,500	42.5	6.40	1.951
Jan. 24	2015	*3,930	111	*7.97	2.429	Sept. 6	0530	3,740	106	7.86	2.396
Feb. 24	2300	1,320	37.4	6.25	1.905	Sept. 22	0200	2,830	80.1	7.31	2.228
Feb. 26	0400	2,440	69.1	7.07	2.155						

Minimum discharge, 14 ft³/s (0.40 m³/s) Oct. 12, gage height, 3.58 ft (1.091 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	27	74	129	81	186	55	54	59	46	39	38
2	23	27	48	461	71	176	61	50	323	41	55	36
3	23	27	45	244	69	148	69	52	525	38	45	35
4	26	27	155	75	67	132	79	57	262	38	38	33
5	26	27	177	67	58	169	99	54	129	41	34	36
6	164	26	67	67	58	230	65	49	110	36	32	1120
7	47	26	51	108	60	138	54	47	84	34	30	105
8	36	25	59	753	62	102	53	46	72	33	31	58
9	32	25	607	153	58	90	96	46	64	33	26	49
10	30	24	254	90	56	88	162	45	61	32	29	46
11	27	24	82	74	54	215	73	43	64	32	39	45
12	26	25	63	68	52	109	68	43	62	31	141	44
13	25	25	59	81	50	85	74	55	54	31	88	42
14	40	25	56	159	49	85	162	88	52	31	44	61
15	37	25	52	105	48	74	104	61	50	36	39	79
16	28	31	50	69	48	65	78	48	49	32	35	45
17	60	37	52	64	47	67	70	44	49	32	33	42
18	43	100	47	58	45	66	63	50	49	32	35	41
19	35	46	46	55	50	62	59	106	46	34	41	41
20	32	37	45	71	59	61	57	78	45	31	36	38
21	29	33	98	1330	64	61	56	56	44	372	34	187
22	28	32	60	381	94	59	56	51	50	65	32	1290
23	27	31	49	127	109	59	55	68	230	45	30	131
24	26	41	79	1700	533	91	55	378	50	42	36	77
25	26	35	442	901	1160	116	54	165	44	41	42	65
26	27	30	94	170	1280	75	58	98	41	40	36	61
27	55	35	67	136	337	61	110	74	40	53	58	57
28	38	39	53	122	218	59	95	64	39	39	75	55
29	31	45	51	111	---	59	65	71	39	42	73	57
30	28	117	51	99	---	58	57	65	39	75	113	55
31	28	---	58	89	---	57	---	60	---	43	43	---
TOTAL	1126	1074	3191	8117	4937	3094	2262	2266	2825	1551	1462	4069
MEAN	36.3	35.8	103	262	176	99.8	75.4	73.1	94.2	50.0	47.2	136
MAX	164	117	607	1700	1280	230	162	378	525	372	141	1290
MIN	23	24	45	55	45	57	53	43	39	31	26	33
/	4.34	4.61	4.32	4.66	4.92	4.57	5.08	4.81	4.92	4.43	5.42	5.57
MEAN≠	40.6	40.4	107	267	181	104	80.5	77.9	99.1	54.5	52.6	141
CFSM≠	.89	.88	2.34	5.82	3.96	2.28	1.76	1.70	2.16	1.19	1.15	3.08
IN.≠	1.02	.98	2.70	6.71	4.12	2.63	1.96	1.96	2.41	1.37	1.32	3.44

CAL YR 1978 TOTAL 32201 MEAN 88.2 MAX 2120 MIN 21 MEAN≠ 92.8 CFSM≠ 2.03 IN.≠ 27.50
WTR YR 1979 TOTAL 35974 MEAN 98.6 MAX 1700 MIN 23 MEAN≠ 103 CFSM≠ 2.26 IN.≠ 30.64

/ Diversion for municipal supply and change in contents in Rock Run Reservoir, equivalent in cubic feet per second, furnished by City of Coatesville.

≠ Adjusted for diversion and change in contents in Rock Run Reservoir.

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA

LOCATION.--Lat 39°57'42", long 75°48'06", Chester County, Hydrologic Unit 02040205, on left bank at bridge on Legislative Route 15068 at Modena and 300 ft (91 m) upstream from Dennis Run.

DRAINAGE AREA.--55.0 mi^2 (142.4 km^2).

PERIOD OF RECORD.--January 1970 to current year.

REVISED RECORDS.--WDR PA-74: 1971-72(P), 1973. WDR PA-75-1: 1974(m).

GAGE.--Water-stage recorder. Altitude of gage is 265 ft (80.8 m), from topographic map.

REMARKS.--Records good. Flow regulated by Rock Run Reservoir, capacity, 320 mil gal (1.211 hm^3) 5.6 mi (9.0 km) upstream and by Lukens Steel Company. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--9 years, 106 ft^3/s (3.002 m^3/s), 26.25 in/yr (667 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,600 ft^3/s (272 m^3/s) June 29, 1973, gage height, 12.47 ft (3.801 m), from rating curve extended above 920 ft^3/s (26.1 m^3/s) on basis of slope-area measurement at gage height 11.48 ft (3.499 m); minimum, 1.8 ft^3/s (0.051 m^3/s) Aug. 29, 1974; minimum gage height, 2.27 ft (0.692 m) Oct. 14, 1970.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 840 ft^3/s (23.8 m^3/s) and maximum(*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage Height (ft)	Gage Height (m)
Dec. 9	0845	1,280	36.2	5.65	1.722	Feb. 26	0415	3,540	100	7.87	2.399
Jan. 8	0400	1,280	36.2	5.66	1.725	June 3	0830	1,680	47.6	6.17	1.881
Jan. 21	1545	3,030	85.8	7.66	2.335	July 21	1115	4,720	134	9.14	2.786
Jan. 24	2045	4,850	137	9.25	2.819	Sept. 6	0545	*5,090	144	*9.45	2.880
Feb. 24	2330	1,960	55.5	6.26	1.908	Sept. 22	0215	4,170	118	8.68	2.646

Minimum discharge, 15 ft^3/s (0.42 m^3/s) Nov. 12, gage height, 2.50 ft (0.762 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	40	88	131	111	204	78	62	82	78	49	50
2	37	37	60	477	105	193	76	74	328	64	80	49
3	35	37	55	276	101	171	90	76	576	64	57	47
4	41	37	158	99	99	150	110	80	286	62	50	44
5	41	37	182	90	88	220	131	80	169	68	49	58
6	155	35	82	92	84	260	105	72	145	57	52	1520
7	57	37	62	126	86	180	90	68	120	57	49	152
8	44	35	76	842	88	130	90	68	109	53	47	93
9	40	37	691	182	84	118	129	62	103	55	44	76
10	37	41	273	122	76	160	190	66	97	52	47	74
11	35	35	101	103	76	210	107	62	107	50	50	68
12	34	35	82	99	72	130	105	62	95	47	169	62
13	34	40	78	109	80	120	105	78	88	53	105	60
14	60	34	72	166	74	120	185	111	82	53	55	78
15	44	35	68	131	72	107	133	80	82	55	49	101
16	46	46	62	95	70	98	111	70	76	52	44	64
17	66	49	60	90	68	100	101	60	78	52	44	62
18	50	111	60	84	68	96	99	74	78	50	49	55
19	46	55	60	76	72	92	93	122	72	57	53	57
20	29	44	58	97	78	90	86	99	74	49	47	53
21	40	41	109	1750	90	90	90	80	74	1130	50	300
22	35	40	74	438	124	88	84	78	70	105	49	1680
23	40	37	60	145	136	84	84	109	240	62	43	169
24	35	50	93	2220	718	110	84	390	82	60	49	109
25	44	41	455	1190	1600	140	82	185	72	53	53	99
26	40	40	116	227	1670	100	90	118	66	58	49	90
27	57	41	95	188	358	90	131	101	70	68	82	80
28	46	52	64	174	227	84	120	86	62	52	90	80
29	40	60	60	147	---	84	95	97	64	60	97	80
30	37	124	55	131	---	82	82	88	64	93	138	80
31	37	---	74	122	---	80	---	82	---	53	55	---
TOTAL	1417	1383	3683	10219	6575	3981	3156	2960	3711	2922	1944	5590
MEAN	45.7	46.1	119	330	235	128	105	95.5	124	94.3	62.7	186
MAX	155	124	691	2220	1670	260	190	390	576	1130	169	1680
MIN	29	34	55	76	68	80	76	60	62	47	43	44
/	-.12	+.15	-.35	+.22	-.13	-.35	+.11	+.04	+.34	-.99	+.03	+.06
MEAN≠	45.6	46.2	118	330	235	128	105	95.5	124	93.3	62.7	186
CFSM≠	.83	.84	2.15	6.00	4.27	2.33	1.91	1.74	2.26	1.70	1.14	3.39
IN.≠	.96	.94	2.48	6.92	4.44	2.69	2.13	2.00	2.52	1.96	1.32	3.78

CAL YR 1978 TOTAL 41973 MEAN 115 MAX 2810 MIN 27 MEAN≠ 115 CFSM≠ 2.09 IN.≠ 28.40
WTR YR 1979 TOTAL 47541 MEAN 130 MAX 2220 MIN 29 MEAN≠ 130 CFSM≠ 2.37 IN.≠ 32.13

/ Change in contents in Rock Run Reservoir, equivalent in cubic feet per second, furnished by City of Coatesville
≠ Adjusted for change in contents in Rock Run Reservoir.

CHRISTINA RIVER BASIN

01480675 MARSH CREEK NEAR GLENMOORE, PA

LOCATION.--Lat 40°05'52", long 75°44'31", Chester County, Hydrologic Unit 02040205, on left bank 200 ft (60 m) north of Pennsylvania Turnpike, 1.2 mi (1.9 km) downstream from Lyons Run, 1.8 mi (2.9 km) upstream from Black Horse Creek, and 3 mi (5 km) northeast of Glenmoore.

DRAINAGE AREA.--8.57 mi² (22.20 km²).

PERIOD OF RECORD.--July 1966 to current year.

REVISED RECORDS.--WDR PA-74: 1967(M), 1971-72(P).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 450 ft (137 m), from topographic map.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years, 13.4 ft³/s (0.379 m³/s), 21.23 in/yr (539 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 946 ft³/s (26.8 m³/s) June 22, 1972, gage height, 4.68 ft (1.426 m); minimum, 0.3 ft³/s (0.008 m³/s) Aug. 31, 1966, gage height, 0.98 ft (0.299 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 130 ft³/s (3.68 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 8	1530	148	4.19	2.41	0.735
Jan. 21	1700	268	7.59	2.81	0.856
Jan. 24	2030	*794	22.5	*4.31	1.314
Feb. 25	0245	253	7.16	2.76	0.841
Feb. 26	1100	265	7.50	2.80	0.853
Sept. 6	1645	178	5.04	2.51	0.765
Sept.22	1315	220	6.23	2.65	0.808

Minimum discharge, 2.6 ft³/s (0.074 m³/s) Oct. 1, Aug. 23, 24, gage height, 1.36 ft (0.415 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	4.0	22	25	5.1	49	12	10	15	9.8	5.2	3.8
2	2.9	3.9	11	75	4.9	42	14	9.4	16	8.6	9.1	3.6
3	2.7	3.9	8.7	83	4.8	36	17	9.6	27	6.7	6.7	3.4
4	3.1	3.9	24	25	5.2	28	19	12	35	6.5	5.0	3.3
5	3.4	3.9	35	14	5.4	33	22	12	25	7.6	4.4	5.1
6	28	3.9	20	13	5.4	49	16	9.8	16	6.4	4.2	125
7	35	3.9	10	19	5.7	36	12	8.9	13	5.8	3.8	80
8	8.0	3.9	11	109	5.9	26	10	8.2	12	6.0	3.7	15
9	4.7	3.8	64	71	6.1	22	18	7.7	11	4.3	3.5	6.9
10	3.8	3.8	79	25	6.3	21	36	7.3	11	3.9	3.4	5.2
11	3.7	3.8	20	28	5.8	41	18	6.8	15	4.6	4.1	4.8
12	3.6	3.8	12	58	6.0	27	15	7.0	16	4.2	21	4.5
13	3.5	3.9	11	20	5.7	20	15	11	11	3.7	33	4.3
14	6.3	3.9	10	14	5.1	20	32	18	8.6	7.7	11	6.9
15	7.4	3.9	9.2	15	11	20	30	14	7.8	27	5.3	14
16	5.0	5.2	8.7	13	11	16	17	9.7	7.4	9.4	4.3	8.9
17	11	7.1	9.8	11	10	17	15	7.3	7.2	6.2	3.9	5.2
18	11	22	8.7	14	9.9	17	14	13	7.3	21	4.1	4.4
19	6.4	18	7.7	28	9.7	16	12	32	6.9	24	5.3	4.2
20	5.0	7.4	7.2	17	9.7	15	11	24	6.3	9.6	4.6	4.0
21	4.4	5.2	20	12	11	14	11	14	5.7	14	4.1	19
22	4.1	4.7	18	11	14	14	11	11	8.5	17	3.9	167
23	4.0	4.6	10	12	18	14	11	13	36	8.1	3.6	71
24	4.0	7.6	12	9.0	51	19	10	75	17	6.0	2.9	18
25	3.9	6.7	77	8.3	184	24	10	60	8.9	5.1	3.9	11
26	4.2	4.8	40	8.2	213	17	13	28	6.9	6.1	3.5	9.6
27	10	4.4	15	7.7	91	14	26	18	5.9	12	5.9	8.8
28	8.5	6.3	9.6	8.5	55	12	25	15	6.3	6.7	11	8.3
29	5.2	9.7	8.2	8.3	---	13	15	16	13	5.5	7.4	9.1
30	4.3	24	7.4	6.5	---	13	12	17	9.5	12	5.5	9.1
31	4.0	---	10	6.2	---	12	---	17	---	7.8	4.2	---
TOTAL	213.9	195.9	616.2	774.7	775.7	717	499	521.7	392.2	277.9	201.5	643.4
MEAN	6.90	6.53	19.9	25.0	27.7	23.1	16.6	16.8	13.1	8.96	6.50	21.4
MAX	35	24	79	109	213	49	36	75	36	24	33	167
MIN	2.7	3.8	7.2	6.2	4.8	12	10	6.8	5.7	3.7	2.9	3.3
CFSM	.81	.76	2.32	2.92	3.23	2.70	1.94	1.96	1.53	1.05	.76	2.50
IN.	.93	.85	2.67	3.36	3.37	3.11	2.17	2.26	1.70	1.21	.87	2.79

CAL YR 1978 TOTAL 6249.3 MEAN 17.1 MAX 227 MIN 2.4 CFSM 2.00 IN 27.12
WTR YR 1979 TOTAL 5829.1 MEAN 16.0 MAX 213 MIN 2.7 CFSM 1.87 IN 25.30

RESERVOIR IN CHRISTINA RIVER BASIN

01480684 MARSH CREEK RESERVOIR.--Lat 40°03'24", long 75°43'06", Chester County, Hydrologic Unit 02040205, on right bank at dam on Marsh Creek, 0.3 mi (0.5 km) upstream from mouth and 3.2 mi (5.1 km) north of Downingtown. DRAINAGE AREA, 20.1 mi² (52.1 km²). PERIOD OF RECORD, November 1973 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pennsylvania Department of Environmental Resources).

Reservoir formed by earthfill dam with concrete spillway at elevation 359.5 ft (109.58 m). Storage began November 1973. Total capacity 22,190 acre-ft (27.4 hm³) at elevation 373 ft (113.69 m). Reservoir is used for water supply, flood control and recreation. Figures given herein represent contents above lowest gate sill at elevation 289.5 ft (88.24 m). Records furnished by Pennsylvania Department of Environmental Resources.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 16,380 acre-ft (20.1 hm³) Jan. 25, 1979, elevation, 363.49 ft (110.792 m); minimum (after first filling), 10,410 acre-ft (12.8 hm³) Mar. 3, 1976, elevation, 351.75 ft (107.213 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 16,380 acre-ft (20.1 hm³) Jan. 25, elevation, 363.49 ft (110.792 m); minimum, 11,420 acre-ft (14.0 hm³) Oct. 17, elevation, 353.99 ft (107.896 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01480684 Marsh Creek Reservoir					
Sept. 30	359.78	14,340	--			
Oct. 31	354.50	11,660	- 43.6			
Nov. 30	355.88	12,350	+ 11.6			
Dec. 31	357.39	13,100	+ 12.2			
CAL YR 1978	--	--	- 2.4			
Jan. 31	357.53	13,180	+ 1.3			
Feb. 28	361.28	15,160	+ 35.6			
Mar. 31	360.10	14,520	- 10.4			
Apr. 30	360.20	14,570	+ 0.8			
May 31	359.82	14,360	- 3.4			
June 30	360.03	14,480	+ 2.0			
July 31	360.01	14,470	- 0.2			
Aug. 31	359.86	14,380	- 1.5			
Sept. 30	359.83	14,370	- 0.2			
WTR YR 1979	--	--	0			

CHRISTINA RIVER BASIN

01480685 MARSH CREEK NEAR DOWNINGTOWN, PA

LOCATION.--Lat 40°03'19", long 75°43'00", Chester County, Hydrologic Unit 02040205, on left bank 1,000 ft (305 m) downstream from Marsh Creek Dam, 0.2 mi (0.3 km) upstream from mouth and 3.0 mi (4.8 km) north of Downingtown.

DRAINAGE AREA.--20.3 mi^2 (52.6 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1973 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 280 ft (85 m), from topographic map.

REMARKS.--Records good. Flow completely regulated since November 1973 by Marsh Creek Reservoir (station 01480684) 1,000 ft (305 m) upstream.

AVERAGE DISCHARGE.--6 years, 35.8 ft^3/s (1.014 m^3/s), 23.93 in/yr (608 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 544 ft^3/s (15.4 m^3/s) Jan. 26, 1979, gage height, 3.66 ft (1.116 m), from rating curve extended above 200 ft^3/s (5.7 m^3/s); minimum daily, 0.31 ft^3/s (0.009 m^3/s) Dec. 22, 23, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 544 ft^3/s (15.4 m^3/s) Jan. 26, gage height, 3.66 ft (1.116 m); minimum daily, 3.3 ft^3/s (0.093 m^3/s) Nov. 26, 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	3.6	3.4	62	270	244	27	37	59	26	25	15
2	7.6	3.6	3.4	44	179	209	27	34	14	23	32	15
3	7.0	3.6	3.4	28	65	185	29	31	33	22	46	14
4	7.4	3.6	3.7	63	65	171	32	31	49	20	40	13
5	7.8	3.6	3.7	63	32	169	36	30	54	20	32	22
6	9.8	3.4	3.4	63	13	169	36	27	54	19	27	61
7	16	3.6	3.4	63	15	111	32	26	52	17	22	85
8	17	3.4	3.4	64	17	66	30	24	48	17	20	77
9	15	3.6	5.1	63	20	66	33	23	43	16	18	66
10	51	3.4	12	63	28	66	42	22	40	15	17	57
11	69	3.6	29	63	28	34	43	21	41	14	17	49
12	169	3.6	63	63	28	11	42	21	40	14	22	58
13	254	3.6	63	63	28	11	41	21	36	14	34	77
14	252	3.4	63	63	28	11	47	26	32	14	33	56
15	250	3.4	63	63	28	11	54	29	29	16	29	17
16	249	3.4	63	63	28	11	52	27	26	17	23	17
17	169	3.4	63	63	28	11	48	24	23	17	21	17
18	10	3.6	63	63	28	11	44	25	22	19	19	16
19	11	3.4	63	63	28	11	42	36	21	24	19	15
20	8.0	3.6	63	63	28	13	38	44	19	24	18	14
21	4.2	3.6	63	78	28	14	35	42	19	30	17	18
22	3.7	3.6	47	120	28	16	33	38	19	33	17	106
23	3.7	3.6	10	116	28	17	31	37	33	32	16	145
24	3.7	3.6	11	135	25	20	30	64	36	28	15	147
25	3.7	3.4	11	336	13	27	29	82	32	24	15	120
26	3.7	3.3	11	418	85	28	28	96	27	22	14	98
27	3.6	3.3	27	401	133	27	34	117	24	23	14	85
28	3.6	3.3	63	326	216	27	39	100	21	21	16	76
29	3.6	3.4	63	279	---	27	42	89	23	20	16	57
30	3.6	3.6	63	272	---	27	39	82	23	27	17	16
31	3.6	---	63	270	---	27	---	76	---	29	17	---
TOTAL	1627.3	105.1	1072.9	3957	1540	1848	1115	1382	992	657	688	1629
MEAN	52.5	3.50	34.6	128	55.0	59.6	37.2	44.6	33.1	21.2	22.2	54.3
MAX	254	3.6	63	418	270	244	54	117	59	33	46	147
MIN	3.6	3.3	3.4	28	13	11	27	21	14	14	14	13
MEAN≠	8.91	15.1	46.8	129	90.6	49.2	38.0	41.2	35.1	21.0	20.7	54.1
CFSM≠	.44	.74	2.31	6.35	4.47	2.42	1.87	2.03	1.73	1.04	1.02	2.67
IN≠	.51	.83	2.66	7.32	4.65	2.79	2.09	2.34	1.93	1.19	1.18	2.98

CAL YR 1978 TOTAL 15522.7 MEAN 42.5 MAX 254 MIN 3.3 MEAN≠ 40.1 CFSM≠ 1.98 IN≠ 26.82
WTR YR 1979 TOTAL 16613.3 MEAN 45.5 MAX 416 MIN 3.3 MEAN≠ 45.6 CFSM≠ 2.24 IN≠ 30.47

≠ Adjusted for change in contents in Marsh Creek Reservoir.

CHRISTINA RIVER BASIN

01480685 MARSH CREEK NEAR DOWNINGTOWN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1973 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 31.5°C Aug. 2, 1975, July 19, 1977; minimum, 0.5°C Feb. 26, 1979.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 26.5°C Aug. 3; minimum, 0.5°C Feb. 26.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	---	---	---	9.0	7.0	8.0	3.5	2.5	3.0
2	---	---	---	15.0	12.5	14.0	8.5	7.0	7.5	7.0	3.0	4.0
3	---	---	---	15.0	12.0	13.0	8.0	7.0	7.5	3.0	2.0	2.5
4	18.0	17.0	17.5	13.0	12.5	12.5	10.0	7.5	8.5	2.5	2.0	2.5
5	19.5	17.0	17.5	14.5	12.0	13.0	8.5	7.0	8.0	3.0	2.5	2.5
6	19.5	17.5	18.0	14.5	12.0	13.0	9.0	7.0	7.5	2.5	2.0	2.5
7	18.5	17.0	17.5	13.5	12.0	12.5	8.5	7.0	7.5	2.5	2.0	2.5
8	17.0	16.0	17.0	12.5	11.5	12.5	9.0	7.5	8.5	2.5	2.0	2.0
9	17.0	16.0	16.5	13.0	12.0	12.5	9.5	6.5	8.0	2.5	2.0	2.0
10	16.0	13.5	14.5	---	---	---	7.0	5.5	6.5	2.5	2.0	2.0
11	14.0	13.0	13.5	---	---	---	7.0	7.0	7.0	2.5	2.0	2.0
12	13.5	11.0	12.0	---	---	---	7.0	6.5	7.0	2.5	2.0	2.0
13	12.0	12.0	12.0	---	---	---	7.0	6.0	6.5	2.5	2.0	2.5
14	12.5	12.0	12.5	---	---	---	6.5	5.5	6.0	2.5	2.0	2.5
15	12.5	12.5	12.5	---	---	---	6.0	5.5	6.0	2.5	2.0	2.5
16	13.0	12.5	13.0	---	---	---	6.0	5.5	5.5	3.0	2.5	2.5
17	15.0	13.0	14.5	---	---	---	5.5	5.0	5.5	2.5	2.5	2.5
18	16.0	14.5	15.0	---	---	---	5.5	5.0	5.0	2.5	2.5	2.5
19	15.5	14.0	14.5	---	---	---	5.0	4.5	4.5	2.5	2.5	2.5
20	16.5	13.5	14.5	---	---	---	4.5	4.0	4.5	2.5	2.0	2.5
21	17.5	13.0	14.5	---	---	---	5.0	4.0	4.0	2.5	1.5	2.0
22	16.0	13.0	14.0	---	---	---	5.0	3.5	4.0	2.5	2.0	2.5
23	15.5	12.5	13.5	---	---	---	---	---	---	2.0	2.0	2.0
24	14.5	12.5	13.0	---	---	---	---	---	---	4.0	1.5	2.0
25	14.0	12.5	12.5	---	---	---	---	---	---	3.5	2.0	2.0
26	---	---	---	---	---	---	---	---	---	2.5	2.0	2.5
27	---	---	---	---	---	---	---	---	---	3.0	2.5	2.5
28	---	---	---	---	---	---	---	---	---	2.5	2.5	2.5
29	---	---	---	---	---	---	2.5	2.0	2.0	2.5	2.5	2.5
30	---	---	---	9.0	8.0	8.5	2.5	2.0	2.5	2.5	2.0	2.0
31	---	---	---	---	---	---	2.5	2.5	2.5	2.0	2.0	2.0
MONTH	19.5	11.0	14.5	15.0	8.0	12.5	10.0	2.0	6.0	7.0	1.5	2.5

01480685 MARSH CREEK NEAR DOWNINGTOWN, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.0	2.0	2.0	2.0	2.0	2.0	---	---	---	15.5	13.0	14.0
2	3.5	1.5	2.0	2.5	2.0	2.0	---	---	---	14.5	12.5	13.5
3	2.0	1.5	2.0	2.0	2.0	2.0	---	---	---	14.0	12.5	13.5
4	2.0	1.5	2.0	2.5	2.0	2.0	---	---	---	15.0	13.0	14.0
5	4.0	1.5	2.0	2.5	2.0	2.5	10.0	9.0	9.0	16.0	13.0	14.5
6	2.0	1.0	1.5	2.5	2.0	2.5	9.0	7.0	8.5	15.0	13.0	13.5
7	1.5	1.0	1.5	3.5	2.0	2.5	9.0	7.0	7.5	14.5	13.0	13.5
8	2.0	1.0	1.5	3.5	2.0	2.5	9.0	7.0	8.0	16.0	13.5	14.5
9	2.0	1.0	1.5	4.0	2.0	3.0	8.0	7.0	7.5	16.5	14.5	15.5
10	1.5	1.0	1.5	4.0	3.0	3.5	9.0	7.0	8.0	17.0	15.5	16.0
11	1.5	1.5	1.5	5.0	2.5	3.5	10.5	7.5	8.5	17.5	16.0	17.0
12	1.5	1.5	1.5	5.0	2.5	3.0	9.5	8.5	9.0	17.0	16.0	16.5
13	1.5	1.0	1.5	6.0	2.5	4.0	9.5	7.5	8.0	16.5	16.0	16.0
14	1.5	1.5	1.5	5.0	3.0	4.0	9.0	7.0	8.0	17.0	16.5	16.5
15	1.5	1.5	1.5	5.0	4.5	4.5	9.5	8.5	9.0	18.0	16.0	17.0
16	2.0	1.5	1.5	---	---	---	9.0	8.5	8.5	18.5	15.5	16.5
17	2.0	1.5	1.5	---	---	---	9.0	8.0	8.5	17.5	15.5	16.5
18	1.5	1.5	1.5	---	---	---	10.0	8.0	9.0	17.0	15.5	16.0
19	1.5	1.0	1.5	---	---	---	10.5	8.5	9.5	16.5	16.0	16.5
20	2.0	1.5	1.5	---	---	---	12.0	9.0	10.0	17.0	16.0	16.5
21	2.0	1.5	1.5	---	---	---	12.0	9.0	10.5	17.0	16.0	16.5
22	2.0	1.5	1.5	---	---	---	11.0	9.0	10.0	17.5	16.0	17.0
23	2.0	1.5	1.5	---	---	---	12.5	10.0	11.5	17.5	16.5	17.0
24	3.0	1.0	1.5	---	---	---	12.0	10.5	11.5	19.0	16.5	17.5
25	2.0	1.5	1.5	---	---	---	12.5	9.0	11.0	19.0	18.0	18.5
26	1.5	.5	1.0	---	---	---	12.0	9.0	10.5	18.5	16.0	18.0
27	1.5	1.0	1.0	---	---	---	13.5	11.0	12.5	16.0	15.5	16.0
28	2.0	1.0	1.5	---	---	---	14.0	12.5	13.0	17.0	15.0	15.5
29	---	---	---	---	---	---	15.0	12.5	13.5	16.0	14.5	15.0
30	---	---	---	---	---	---	14.5	12.5	13.5	16.5	15.0	15.5
31	---	---	---	---	---	---	---	---	---	16.0	14.0	15.0
MONTH	4.0	.5	1.5	6.0	2.0	3.0	15.0	7.0	10.0	19.0	12.5	16.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	15.5	14.0	14.5	21.0	19.5	20.0	24.0	23.0	23.5	22.5	21.0	21.5
2	16.5	15.5	16.0	20.5	19.5	20.0	25.0	22.5	24.0	22.0	21.0	21.0
3	18.5	15.5	17.5	21.0	19.0	20.0	26.5	24.5	25.5	21.5	20.5	21.0
4	19.5	18.0	18.5	19.5	18.5	19.0	26.5	25.0	26.0	22.0	20.5	21.0
5	22.0	18.5	19.5	21.5	17.5	19.5	26.0	24.5	25.5	21.0	19.5	20.5
6	21.0	19.5	20.0	20.5	17.5	18.5	25.5	24.0	25.0	24.5	21.0	23.0
7	21.0	19.5	20.0	20.5	17.5	19.0	24.5	23.5	24.0	25.0	24.0	24.5
8	21.0	19.5	20.5	21.0	18.0	19.0	24.0	22.5	23.0	24.5	24.0	24.0
9	21.0	20.5	20.5	20.0	17.5	18.5	23.5	22.0	23.0	24.0	23.0	23.5
10	21.0	19.0	20.5	19.0	17.5	18.0	24.0	21.5	22.5	23.5	22.5	23.0
11	20.5	19.5	20.0	20.5	17.5	19.0	23.0	21.0	22.0	23.0	22.0	22.5
12	21.0	18.5	19.5	21.0	18.5	19.5	22.0	21.0	21.5	23.5	21.0	22.0
13	21.0	18.5	19.5	20.5	18.5	19.5	23.5	22.0	22.5	21.0	20.0	20.5
14	21.5	18.5	19.5	21.0	18.5	19.5	23.5	21.5	22.5	21.5	19.0	20.0
15	21.0	18.0	19.0	22.0	19.5	21.0	23.0	21.0	22.0	22.5	20.5	21.5
16	20.5	18.5	19.5	23.0	21.0	22.0	22.0	20.5	21.0	21.5	20.0	21.0
17	20.5	19.0	19.5	23.5	20.5	22.0	22.0	20.0	21.0	21.5	20.0	20.5
18	21.0	19.5	20.0	24.0	21.0	22.0	21.0	19.5	20.0	21.0	20.0	20.5
19	21.0	19.0	20.0	24.5	23.0	23.5	22.0	20.0	21.0	22.0	19.5	20.5
20	20.5	19.0	19.5	24.0	22.5	23.5	22.0	20.5	21.5	20.5	19.0	19.5
21	20.0	18.0	19.0	24.0	21.5	23.0	21.5	20.5	21.0	19.5	17.0	19.0
22	20.0	17.5	18.0	24.5	23.0	23.5	22.0	20.0	21.0	21.0	17.5	20.5
23	22.0	19.0	20.5	24.0	23.0	23.5	21.0	20.0	20.5	20.5	19.5	20.5
24	21.5	19.5	20.5	24.5	22.5	23.5	21.0	19.5	20.0	19.5	19.0	19.0
25	21.0	19.5	20.0	24.0	23.0	23.5	21.5	20.0	20.5	19.5	18.5	19.0
26	21.0	19.0	20.0	24.0	22.5	23.5	21.0	20.5	20.5	19.5	18.5	19.0
27	20.5	18.5	19.5	24.0	22.5	23.5	21.5	20.0	20.5	19.0	18.0	18.5
28	20.5	18.5	19.5	24.0	22.5	23.5	22.5	21.0	21.5	18.0	17.5	18.0
29	20.5	18.5	19.5	23.0	21.5	22.5	22.0	21.0	21.5	18.0	17.5	18.0
30	20.5	19.0	19.5	24.5	22.0	23.5	23.5	21.0	22.0	18.5	18.0	18.5
31	---	---	---	24.5	23.0	24.0	23.0	21.5	22.0	---	---	---
MONTH	22.0	14.0	19.5	24.5	17.5	21.5	26.5	19.5	22.0	25.0	17.0	20.5

01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNINGTON, PA

LOCATION.--Lat 40°02'05", long 75°42'32", Chester County, Hydrologic Unit 02040205, on right bank 20 ft (6 m) downstream from bridge on Dowlin Forge Road, 200 ft (60 m) east of State Highway 282, 0.4 mi (0.6 km) downstream from Shamona Creek, 1.5 mi (2.4 km) downstream from Marsh Creek, 2.0 mi (3.2 km) upstream from Beaver Creek, and 2.2 mi (3.5 km) north of Downingtown.

DRAINAGE AREA.--60.6 mi² (157.0 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1948-57, October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 270 ft (82 m), from topographic map. Prior to July 30, 1966, nonrecording gage at same site and datum.

REMARKS.--Records fair. Flow regulated by Marsh Creek Reservoir (station 01480684) 1.9 mi (3.1 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--14 years, 95.6 ft³/s (2.707 m³/s), 21.43 in/yr (544 mm/yr), adjusted for storage since November 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,070 ft³/s (229 m³/s) June 22, 1972, gage height, 12.06 ft (3.676 m), from floodmark, from rating curve extended above 5,000 ft³/s (140 m³/s); minimum, 7.2 ft³/s (0.20 m³/s) Sept. 2, 3, 11, 12, 13, 1966, gage height, 1.80 ft (0.549 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,750 ft³/s (135 m³/s) Jan. 25, gage height, 8.95 ft (2.728 m); minimum, 26 ft³/s (0.74 m³/s) Oct. 1, gage height, 2.11 ft (0.643 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	31	67	150	250	433	82	84	113	79	67	45
2	27	31	45	500	200	388	90	79	169	67	111	43
3	26	32	40	200	150	326	97	77	334	62	90	42
4	26	31	103	150	130	290	107	84	248	61	70	48
5	29	32	105	135	110	326	128	79	155	65	60	70
6	135	32	62	130	106	379	97	72	143	56	55	1500
7	52	31	87	163	109	241	86	70	123	52	50	200
8	43	31	53	801	105	160	82	67	109	50	47	120
9	39	31	689	196	100	148	95	65	101	49	45	100
10	72	30	184	163	90	148	169	62	95	47	50	80
11	96	30	105	128	95	224	105	62	107	47	55	65
12	190	30	116	118	84	109	103	59	97	45	150	60
13	290	30	111	130	88	97	111	70	86	43	100	80
14	302	31	107	190	93	95	211	110	81	46	70	85
15	294	31	101	138	86	90	145	82	75	67	55	65
16	287	36	99	121	86	82	123	72	72	50	50	55
17	234	39	101	116	88	82	111	65	76	61	47	50
18	41	93	97	111	88	79	103	81	70	81	45	48
19	38	40	95	108	82	75	95	153	65	72	60	46
20	35	33	93	130	92	75	90	118	62	55	50	45
21	29	30	155	1500	92	75	88	93	61	200	48	234
22	26	29	101	400	110	75	84	84	82	90	46	1370
23	26	29	56	250	125	77	84	95	202	70	45	283
24	30	35	79	1500	654	107	81	475	90	65	45	234
25	30	31	495	1200	1100	121	79	252	79	60	50	107
26	31	28	103	600	1420	99	82	196	70	60	45	155
27	50	30	95	500	500	90	135	190	65	80	50	133
28	36	35	107	400	470	86	118	160	64	60	70	118
29	32	39	103	350	---	86	99	153	70	60	55	103
30	31	113	107	300	---	88	90	138	67	60	85	69
31	31	---	120	280	---	84	---	133	---	75	50	---
TOTAL	2634	1104	3981	11178	6776	4831	3170	3580	3225	2035	1916	5725
MEAN	85.0	36.8	128	361	242	156	106	115	108	65.6	61.8	191
MAX	302	113	689	1500	1420	433	211	475	334	200	150	1500
MIN	26	28	40	108	82	75	79	59	61	43	45	40
MEAN≠	41.4	48.4	141	362	278	145	107	112	110	65.5	60.4	191
CFSM≠	.68	.80	2.32	5.97	4.58	2.40	1.76	1.85	1.81	1.08	1.00	3.15
IN≠	.79	.89	2.68	6.88	4.77	2.77	1.96	2.13	2.02	1.25	1.15	3.51

CAL YR 1978 TOTAL 46985 MEAN 129 MAX 2020 MIN 26 MEAN≠ 126 CFSM≠ 2.08 IN≠ 28.30
WTR YR 1979 TOTAL 50155 MEAN 137 MAX 1500 MIN 26 MEAN≠ 137 CFSM≠ 2.27 IN≠ 30.80

≠ Adjusted for change in contents in Marsh Creek Reservoir.

01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNINGTOWN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1970 to current year.

WATER-QUALITY DATA, OCTOBER 1978

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
OCT										
30...	1130	275	7.4	9.0	12.2	67	29	17	6.0	8.2

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT										
30...	2.6	46	0	38	2.9	16	13	.1	15	102

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)
OCT										
30...	101	.40	.00	.40	.09	.22	.31	.71	.010	.01

DATE	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, DISSOLVED (UG/L AS ZN)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT										
30...	0	0	0	0	90	3	40	0	0	.00

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA

LOCATION.--Lat 39°58'07", long 75°40'25", Chester County, Hydrologic Unit 02040205, on left bank at downstream side of Sugars Bridge (State Highway 322), 2,000 ft (610 m) upstream from Valley Creek, 1.5 mi (2.4 km) north of Marshallton, and 3.3 mi (5.3 km) southeast of Downingtown.

DRAINAGE AREA.--89.9 mi^2 (232.8 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1972 to current year.

REVISED RECORDS.--WDR PA-75-1: 1972(P), 1973, 1974.

GAGE.--Water-stage recorder Apr. 11, 1972 to June 22, 1972, Nov. 18, 1972 to present. Altitude of gage is 195 ft (59.4 m), from topographic map. Nonrecording gage Feb. 1 to Apr. 10, June 25 to Nov. 17, 1972.

REMARKS.--Records good. Flow regulated by Marsh Creek Reservoir (station 01480684) about 7.5 mi (12.1 km) upstream since November 1973.

AVERAGE DISCHARGE.--7 years, 170 ft^3/s (4.814 m^3/s), 25.74 in/yr (654 mm/yr), adjusted for storage since November 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,160 ft^3/s (231 m^3/s) June 22, 1972, gage height, 13.4 ft (4.08 m), from floodmark, from rating curve extended above 3,600 ft^3/s (102 m^3/s) on basis of slope-area measurement of peak flow; minimum, 23 ft^3/s (0.65 m^3/s) July 25, 1977, gage height, 1.97 ft (0.600 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,670 ft^3/s (161 m^3/s) Jan. 24, gage height, 12.07 ft (3.679 m); minimum, 34 ft^3/s (0.96 m^3/s) Nov. 11, gage height, 2.19 ft (0.668 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	40	144	148	438	559	131	130	169	125	91	72
2	50	39	141	140	360	503	137	123	233	104	180	71
3	48	39	141	139	229	422	148	122	680	97	157	70
4	53	39	169	137	223	377	161	131	402	97	106	68
5	54	39	164	139	195	411	186	128	255	102	92	97
6	154	38	163	135	168	485	148	118	220	91	86	2250
7	75	38	174	128	169	349	133	116	192	87	80	300
8	62	39	159	1300	175	247	128	113	173	85	77	181
9	56	37	155	314	169	225	177	109	161	83	74	139
10	81	37	154	227	150	219	263	107	153	82	78	118
11	111	36	154	199	160	330	163	105	179	82	83	107
12	187	37	153	163	140	191	157	103	155	79	256	105
13	312	37	174	196	155	172	160	116	137	77	181	123
14	333	37	182	265	150	169	285	153	127	77	104	127
15	318	37	158	211	160	158	210	127	121	97	93	112
16	309	43	156	176	150	147	178	108	116	83	85	82
17	312	48	158	170	150	146	165	101	114	99	80	77
18	69	143	145	162	150	143	155	123	114	101	81	75
19	57	67	148	158	160	138	145	206	107	102	89	77
20	52	48	148	176	200	137	139	166	103	87	79	74
21	42	44	146	2640	205	135	134	133	100	311	77	264
22	40	42	150	690	227	133	131	122	110	128	75	2340
23	40	42	156	364	232	133	129	157	274	103	72	406
24	39	52	161	2300	945	176	126	699	130	97	73	305
25	40	45	337	1840	2120	165	124	386	115	91	77	248
26	41	40	193	891	2450	158	130	267	106	91	73	213
27	63	214	166	750	795	144	192	246	101	121	80	187
28	48	187	157	626	617	136	177	214	99	89	105	174
29	41	171	153	528	---	137	148	204	104	90	84	166
30	39	159	149	486	---	135	136	190	104	161	130	141
31	40	---	147	458	---	133	---	180	---	109	79	---
TOTAL	3215	1914	5055	16322	11442	7133	4796	5303	5154	3228	3077	8769
MEAN	104	63.8	163	527	409	230	160	171	172	104	99.3	292
MAX	333	214	337	2640	2450	559	285	699	680	311	256	2340
MIN	39	36	141	128	140	133	124	101	99	77	72	68
MEAN‡	60.1	62.7	202	565	444	220	161	168	174	104	97.8	292
CFSM‡	.67	.70	2.25	6.28	4.94	2.44	1.79	1.86	1.93	1.16	1.09	3.25
IN‡	.77	.78	2.59	7.24	5.15	2.82	1.99	2.15	2.16	1.33	1.25	3.63

CAL YR 1978 TOTAL 71664 MEAN 196 MAX 2640 MIN 36 MEAN‡ 195 CFSM‡ 2.17 IN‡ 29.47
WTR YR 1979 TOTAL 75408 MEAN 207 MAX 2640 MIN 36 MEAN‡ 211 CFSM‡ 2.35 IN‡ 31.87

‡ Adjusted for change in contents in Marsh Creek Reservoir.

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTON, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1965 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1972 to current year.
pH: February 1972 to current year.
WATER TEMPERATURES: February 1972 to current year.
DISSOLVED OXYGEN: February 1972 to current year.

EXTREMES FOR PERIOD OF DAILY RECORDS.--
SPECIFIC CONDUCTANCE: Maximum, 652 micromhos Feb. 6, 1977; minimum, 76 micromhos Jan. 25, 1978.
pH: Maximum, 9.9 May 13, June 5, 1973; minimum, 5.4 Oct. 24, 26, 1973.
WATER TEMPERATURES: Maximum, 33.0°C July 19, 1977; minimum, freezing point Jan. 22, 23, 1976, Feb. 13, 15-17, 19, 1979.
DISSOLVED OXYGEN: Maximum, 16.3 mg/L Dec. 1, 1976; minimum, 1.1 mg/L Aug. 17, 1974.

EXTREMES FOR CURRENT YEAR.--
pH: Maximum, 8.8 Apr. 23, 25, May 9; minimum, 6.1 Sept. 6.
DISSOLVED OXYGEN: Maximum, 15.7 mg/L Nov. 14; minimum, 4.4 mg/L May 7.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT								
02...	1200	52	281	7.5	17.5	10.3	140	2.3
09...	1100	55	244	7.2	14.5	10.1	11000	5.6
16...	1130	306	176	6.9	13.0	10.3	980	4.8
23...	1030	41	285	7.3	13.0	9.0	94	3.1
30...	1100	40	245	7.2	10.5	12.2	1600	4.1
NOV								
06...	1200	40	275	7.6	13.5	12.7	1600	2.8
13...	1100	38	274	7.0	11.0	10.6	330	4.2
20...	1130	49	263	7.3	10.0	12.8	1700	--
28...	1200	54	269	7.3	5.0	12.8	240	4.6
DEC								
04...	1130	300	185	7.0	9.0	10.8	1000	5.7
11...	1130	169	192	7.1	3.5	13.1	1200	4.1
18...	1130	129	218	7.1	5.0	12.9	270	--
26...	1130	161	194	6.5	3.0	13.1	1800	4.4
JAN								
02...	1300	836	160	6.7	9.0	10.9	4500	6.8
08...	1300	1430	115	6.3	2.5	12.9	4000	6.8
15...	1400	185	214	7.0	3.0	13.6	2200	3.9
22...	1400	542	144	6.5	4.0	12.5	5200	5.1
29...	1130	528	177	6.1	5.0	12.4	1200	2.6
FEB								
05...	1100	193	190	6.8	2.0	13.7	3500	2.3
12...	1230	140	218	6.7	1.0	13.6	12000	2.8
22...	1300	232	245	7.0	3.5	13.0	250	3.8
27...	1100	764	125	6.5	3.5	12.9	2200	11
MAR								
21...	1100	137	216	6.6	10.5	12.0	350	8.7
27...	1000	145	198	7.3	6.5	13.2	370	4.1
APR								
02...	1130	139	193	7.2	12.5	10.9	880	8.2
10...	1130	240	164	7.0	8.5	12.4	2200	6.0
17...	1100	167	174	7.4	10.5	12.9	4800	5.2
22...	1130	131	180	8.0	14.0	13.7	3000	6.7
MAY								
01...	1130	135	188	8.0	16.5	13.5	--	3.8
08...	1330	114	206	8.3	20.0	13.2	260	5.9
15...	1130	125	182	7.1	18.0	10.7	--	6.2
22...	1130	123	210	7.1	18.0	10.2	18000	4.9
29...	1200	203	185	6.8	16.5	9.7	5900	5.6
JUN								
05...	1300	252	191	6.8	19.0	9.0	59000	5.6
12...	1130	155	203	7.1	19.0	9.7	43000	4.6
19...	1130	111	217	7.5	20.0	10.4	42000	2.9
25...	1200	116	197	7.3	18.0	9.8	350000	3.1
JUL								
10...	1100	83	233	7.2	20.0	9.1	500000	4.3
17...	1200	104	127	7.2	24.5	8.8	170000	5.1

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	CARBON, ORGANIC TOTAL (MG/L AS C)
JUL								
24...	1100	96	--	7.1	23.5	8.5	30000	4.7
31...	1400	101	167	7.2	25.0	8.3	66000	7.2
AUG								
07...	1130	83	167	7.2	23.5	8.9	110000	3.8
14...	1200	104	177	7.1	22.0	9.2	290000	5.8
21...	1230	76	180	6.9	21.5	8.2	78000	5.6
28...	1130	99	180	7.0	23.5	8.6	86000	7.6
SEP								
04...	1100	69	181	7.0	23.5	8.0	170000	4.4
11...	1130	107	174	6.9	20.0	8.3	180000	4.5
18...	1100	76	237	7.2	18.5	9.9	56000	3.4
26...	1200	215	181	7.0	17.5	9.3	200000	4.4

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	313	281	297	322	282	301	231	196	211	203	186	191
2	307	277	296	316	288	306	253	225	237	182	128	157
3	310	276	297	317	282	302	260	236	246	186	139	167
4	314	286	298	324	287	307	241	172	195	203	185	195
5	299	275	291	325	284	309	196	168	181	207	200	203
6	307	127	213	313	275	296	233	197	215	217	198	207
7	255	204	230	297	277	288	245	226	236	248	203	219
8	265	233	249	304	267	292	247	228	238	246	102	132
9	270	243	259	304	279	294	---	---	---	190	153	176
10	271	207	246	302	273	291	---	---	---	203	191	197
11	222	204	215	314	274	297	---	---	---	209	201	204
12	225	196	210	315	276	300	201	197	198	211	205	208
13	199	193	195	316	274	294	206	194	201	282	202	226
14	193	183	188	294	246	284	210	197	204	291	209	252
15	186	176	180	298	277	290	210	197	206	214	202	208
16	179	170	175	303	278	293	211	199	206	213	205	209
17	213	163	174	290	263	279	210	199	205	214	205	208
18	262	217	240	269	196	220	223	196	212	222	208	213
19	271	244	262	274	234	250	222	212	218	---	---	---
20	276	252	267	282	260	274	239	213	222	---	---	---
21	306	270	287	286	260	275	239	206	217	---	---	---
22	309	274	297	304	279	292	232	156	218	165	144	154
23	309	285	299	306	255	282	259	236	246	185	166	179
24	---	---	---	270	229	250	246	191	231	184	165	179
25	306	281	299	281	256	270	174	112	139	---	---	---
26	310	286	301	287	261	275	207	168	191	---	---	---
27	305	253	276	286	249	267	223	202	211	---	---	---
28	304	261	281	292	269	278	216	199	206	---	---	---
29	307	272	288	278	257	270	218	202	208	---	---	---
30	306	265	279	267	191	207	216	201	207	---	---	---
31	312	284	299	---	---	---	210	197	204	---	---	---
MONTH	314	127	256	325	191	281	260	112	211	291	102	194

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	172	171	172	161	143	154	193	183	189	194	178	186
2	197	167	176	164	154	159	194	187	190	199	183	192
3	211	192	199	171	156	164	191	179	184	203	186	196
4	194	188	191	174	165	170	184	173	179	202	184	193
5	218	186	198	174	164	169	185	169	176	203	181	192
6	241	204	221	175	164	169	189	179	184	200	185	192
7	216	206	212	---	---	---	---	---	---	201	189	195
8	225	204	216	---	---	---	---	---	---	---	---	---
9	224	208	216	---	---	---	---	---	---	214	205	208
10	225	205	215	---	---	---	163	149	156	216	199	210
11	221	198	212	---	---	---	173	161	166	220	200	210
12	218	202	209	206	190	198	184	168	174	216	202	209
13	266	200	215	205	194	200	180	165	172	202	179	191
14	238	200	211	204	187	195	178	128	150	184	163	175
15	206	199	203	207	191	198	155	145	151	192	174	183
16	205	196	201	---	---	---	172	153	162	204	182	194
17	216	205	210	---	---	---	176	165	171	212	194	203
18	233	207	214	---	---	---	180	169	175	212	161	196
19	214	204	207	---	---	---	182	172	177	163	145	153
20	---	---	---	---	---	---	186	176	181	167	146	157
21	---	---	---	---	---	---	188	175	183	191	163	178
22	---	---	---	---	---	---	189	176	181	215	178	199
23	---	---	---	---	---	---	187	168	179	218	158	205
24	---	---	---	---	---	---	189	178	184	166	120	143
25	---	---	---	---	---	---	189	179	184	176	153	168
26	---	---	---	---	---	---	191	175	185	192	175	181
27	---	---	---	200	185	190	178	163	167	179	172	175
28	155	137	145	196	183	189	174	154	164	180	170	175
29	---	---	---	195	184	190	171	158	166	188	173	181
30	---	---	---	194	184	189	188	165	176	192	175	186
31	---	---	---	193	183	189	---	---	---	194	183	190
MONTH	266	137	202	207	143	182	194	128	174	220	120	187

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	197	187	193	233	215	223				---	---	---
2	---	---	---	249	217	230				---	---	---
3	---	---	---	243	219	231				---	---	---
4	184	158	168	241	223	232				---	---	---
5	192	184	188	234	215	225				---	---	---
6	194	185	190	243	220	232				---	---	---
7	199	188	193	250	227	239				---	---	---
8	204	192	199	248	228	239				---	---	---
9	205	197	201	263	228	245				---	---	---
10	206	193	200	259	233	248				---	---	---
11	198	184	193	258	236	248				---	---	---
12	205	192	199	257	233	248				---	---	---
13	210	198	205	255	234	248				---	---	---
14	215	201	209	264	240	254				---	---	---
15	223	208	217	263	206	226				---	---	---
16	242	211	226	251	211	229				---	---	---
17	236	217	225	236	211	221				---	---	---
18	222	204	215	---	---	---				246	237	243
19	226	210	219	---	---	---				253	230	242
20	227	212	222	---	---	---				256	235	247
21	228	213	222	---	---	---				---	---	---
22	230	197	224	---	---	---				---	---	---
23	181	125	156	---	---	---				---	---	---
24	195	180	187	---	---	---				---	---	---
25	221	199	204	---	---	---				---	---	---
26	254	196	223	---	---	---				---	---	---
27	253	231	244	---	---	---				198	183	190
28	250	238	245	---	---	---				198	188	194
29	250	228	242	---	---	---				202	191	196
30	252	232	242	---	---	---				228	197	213
31	---	---	---	---	---	---				---	---	---
MONTH	254	125	209	264	206	236				256	183	218

CHRISTINA RIVER BASIN

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.7	7.1	7.3	7.9	7.1	7.4	7.5	7.1	7.2	7.1	7.0	7.1
2	8.0	7.0	7.3	8.0	7.2	7.4	7.7	7.2	7.4	7.0	6.7	6.9
3	7.9	7.1	7.4	8.0	7.2	7.4	7.6	7.2	7.3	7.0	6.8	6.9
4	7.4	7.1	7.2	7.5	7.2	7.3	7.2	6.9	7.0	7.2	7.0	7.0
5	7.5	7.0	7.2	8.1	7.2	7.4	7.0	7.0	7.0	7.1	7.0	7.0
6	7.1	6.7	6.9	8.0	7.1	7.4	7.4	7.0	7.2	7.2	7.0	7.1
7	7.1	6.9	7.0	8.0	7.1	7.4	7.6	7.1	7.3	7.1	6.9	7.0
8	7.2	7.0	7.1	7.6	7.1	7.3	7.6	7.1	7.2	6.9	6.3	6.6
9	7.4	7.0	7.2	8.1	7.1	7.4	---	---	---	7.0	6.8	6.9
10	7.4	7.1	7.3	8.2	7.1	7.4	---	---	---	7.1	7.0	7.0
11	7.3	7.0	7.1	8.4	7.1	7.5	---	---	---	7.1	7.0	7.1
12	7.2	6.9	7.0	8.4	7.1	7.5	7.2	6.9	7.1	7.2	7.0	7.1
13	6.9	6.8	6.9	7.8	7.0	7.3	7.2	7.1	7.1	7.1	7.0	7.0
14	6.9	6.8	6.8	8.6	7.1	7.6	7.2	7.1	7.1	7.1	7.0	7.0
15	6.9	6.8	6.9	8.4	7.0	7.5	7.2	7.1	7.1	7.2	7.0	7.0
16	7.0	6.9	6.9	8.2	7.1	7.4	7.3	7.1	7.2	7.2	7.0	7.1
17	7.0	6.9	6.9	7.3	7.0	7.1	7.3	7.1	7.2	7.1	7.1	7.1
18	7.3	7.0	7.2	7.1	7.0	7.0	7.3	7.1	7.2	7.3	7.1	7.1
19	7.4	7.2	7.3	7.6	7.0	7.2	7.3	7.1	7.2	---	---	---
20	7.4	7.2	7.3	7.7	7.1	7.3	7.2	7.1	7.2	---	---	---
21	7.5	7.3	7.4	7.7	7.1	7.3	7.2	7.1	7.1	---	---	---
22	7.5	7.3	7.4	7.7	7.2	7.4	7.3	7.1	7.2	6.8	6.5	6.7
23	7.3	7.3	7.3	7.5	7.2	7.3	7.4	7.2	7.3	6.9	6.9	6.9
24	---	---	---	8.0	7.1	7.4	7.4	7.1	7.2	7.0	6.9	6.9
25	7.7	7.3	7.5	7.7	7.2	7.3	7.1	6.7	6.8	---	---	---
26	7.5	7.2	7.3	7.9	7.2	7.4	7.1	6.5	7.0	---	---	---
27	7.5	7.1	7.3	7.4	7.2	7.3	7.3	7.1	7.2	---	---	---
28	7.6	7.1	7.3	7.8	7.2	7.4	7.3	7.1	7.2	---	---	---
29	7.7	7.2	7.3	7.8	7.2	7.4	7.3	7.1	7.2	---	---	---
30	7.7	7.1	7.3	7.3	7.1	7.2	7.3	7.1	7.2	---	---	---
31	7.7	7.1	7.3	---	---	---	7.2	7.1	7.1	---	---	---
MONTH	8.0	6.7	7.2	8.6	7.0	7.4	7.7	6.5	7.2	7.3	6.3	7.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.9	6.8	6.9	6.7	6.6	6.7	8.7	7.0	7.8	8.7	6.8	7.7
2	6.9	6.8	6.9	6.8	6.7	6.7	7.7	6.9	7.2	8.7	6.9	7.7
3	7.0	6.9	7.0	6.8	6.7	6.7	7.9	6.9	7.3	8.6	6.9	7.5
4	7.0	6.9	7.0	6.8	6.8	6.8	7.7	6.9	7.2	8.6	6.8	7.5
5	7.1	6.8	7.0	6.9	6.8	6.8	7.9	6.9	7.3	8.5	6.8	7.5
6	7.2	7.0	7.1	6.8	6.8	6.8	7.9	6.9	7.3	8.4	6.8	7.4
7	7.1	7.0	7.1	---	---	---	---	---	---	7.1	6.7	6.8
8	7.1	7.1	7.1	---	---	---	---	---	---	---	---	---
9	7.1	7.1	7.1	---	---	---	---	---	---	8.8	6.9	8.1
10	7.2	7.1	7.1	---	---	---	7.7	7.0	7.2	8.6	6.8	7.5
11	7.1	7.1	7.1	---	---	---	8.1	7.0	7.4	8.5	6.8	7.5
12	7.1	6.6	7.1	7.0	6.8	7.0	8.0	7.0	7.3	7.4	6.8	7.0
13	7.1	7.0	7.0	7.1	6.9	7.0	8.0	7.0	7.3	7.3	6.7	6.9
14	7.1	7.0	7.0	7.1	6.9	7.0	7.1	6.9	7.0	7.0	6.7	6.8
15	7.1	7.0	7.0	7.1	6.9	7.0	7.9	6.9	7.3	7.8	6.8	7.1
16	7.1	7.0	7.1	---	---	---	7.8	7.0	7.3	7.9	6.9	7.2
17	7.1	7.1	7.1	---	---	---	8.0	6.9	7.4	8.0	6.9	7.3
18	7.1	7.0	7.1	---	---	---	8.3	6.9	7.4	7.4	6.8	7.0
19	7.0	7.0	7.0	---	---	---	8.4	6.9	7.5	7.0	6.8	6.9
20	---	---	---	---	---	---	8.5	6.9	7.6	7.3	6.8	7.0
21	---	---	---	---	---	---	8.6	6.9	7.6	7.3	6.8	7.0
22	---	---	---	---	---	---	8.7	6.9	7.6	7.7	6.8	7.1
23	---	---	---	---	---	---	8.8	6.8	7.7	7.4	6.9	7.0
24	---	---	---	---	---	---	8.6	6.9	7.6	6.9	6.6	6.7
25	---	---	---	---	---	---	8.8	6.8	7.6	6.9	6.8	6.8
26	---	---	---	---	---	---	8.5	6.8	7.4	7.0	6.8	6.9
27	---	---	---	8.2	7.2	7.8	7.4	6.8	7.0	7.0	6.9	6.9
28	6.7	6.6	6.7	8.2	7.0	7.5	7.9	6.8	7.2	7.0	6.8	6.9
29	---	---	---	8.5	7.0	7.6	8.5	6.8	7.5	7.1	6.8	7.0
30	---	---	---	8.7	7.0	7.8	8.5	6.8	7.5	7.2	6.9	7.0
31	---	---	---	8.7	7.0	7.8	---	---	---	7.3	6.9	7.0
MONTH	7.2	6.6	7.0	8.7	6.6	7.1	8.8	6.8	7.4	8.8	6.6	7.2

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.3	6.8	7.0	7.7	6.8	7.1	7.6	6.9	7.1	7.4	6.8	7.0
2	---	---	---	7.5	6.9	7.2	7.6	6.5	7.0	7.3	6.8	6.9
3	---	---	---	8.1	7.0	7.3	7.1	6.5	6.8	7.2	6.7	6.9
4	7.1	6.8	6.9	7.3	6.9	7.1	7.4	6.8	7.1	7.6	6.7	7.0
5	7.1	6.8	7.0	7.8	7.0	7.3	7.6	6.9	7.1	7.3	6.7	7.0
6	7.1	6.9	7.0	7.9	7.0	7.3	7.8	6.9	7.2	6.7	6.1	6.3
7	7.3	6.9	7.1	7.7	7.0	7.3	8.0	6.9	7.3	6.8	6.5	6.7
8	7.3	6.9	7.1	8.1	7.0	7.4	8.2	6.9	7.4	6.9	6.7	6.8
9	7.3	7.0	7.1	8.1	7.0	7.4	8.2	6.9	7.4	7.0	6.8	6.9
10	7.5	7.0	7.2	8.0	7.0	7.4	8.4	6.8	7.4	7.0	6.9	6.9
11	7.0	6.9	7.0	8.2	7.0	7.5	7.5	6.8	7.0	7.1	6.9	7.0
12	7.4	7.0	7.1	8.3	7.0	7.5	6.9	6.7	6.8	7.2	6.9	7.0
13	7.5	7.0	7.2	8.4	7.0	7.5	7.1	6.7	6.9	7.4	6.9	7.1
14	7.6	7.0	7.2	8.3	7.0	7.4	7.5	6.9	7.1	7.3	6.9	7.0
15	7.8	7.0	7.3	7.9	6.9	7.2	7.6	6.9	7.2	7.4	6.9	7.1
16	8.0	7.0	7.4	8.0	6.9	7.2	7.8	7.0	7.3	7.5	7.0	7.2
17	7.9	6.9	7.3	7.8	6.8	7.2	8.0	6.9	7.3	7.7	7.0	7.3
18	8.1	6.9	7.4	7.7	6.9	7.1	7.3	6.8	7.0	8.0	7.1	7.4
19	8.3	7.0	7.5	7.5	6.8	7.1	7.8	6.8	7.2	8.0	7.1	7.4
20	8.4	7.0	7.6	7.7	6.9	7.2	7.9	6.8	7.2	8.0	7.1	7.5
21	8.5	7.0	7.6	7.0	6.5	6.7	7.9	6.8	7.2	---	---	---
22	8.2	6.9	7.4	7.2	6.8	7.0	8.1	6.9	7.3	---	---	---
23	6.9	6.6	6.7	7.3	6.9	7.0	8.1	6.9	7.2	---	---	---
24	7.4	6.8	7.1	7.4	6.9	7.1	6.9	6.8	6.8	---	---	---
25	7.7	6.9	7.2	7.6	6.9	7.2	---	---	---	---	---	---
26	7.8	7.0	7.3	7.5	6.9	7.1	---	---	---	---	---	---
27	8.0	7.0	7.3	7.2	6.9	7.0	---	---	---	7.3	6.9	7.2
28	8.0	7.0	7.4	7.7	6.9	7.1	7.7	6.8	7.2	7.3	7.0	7.1
29	8.1	7.0	7.4	7.4	6.9	7.1	7.8	6.8	7.1	7.3	7.0	7.1
30	8.2	7.0	7.4	7.0	6.8	6.9	7.0	6.7	6.8	7.2	7.0	7.1
31	---	---	---	7.4	6.7	7.0	7.4	6.8	7.0	---	---	---
MONTH	8.5	6.6	7.2	8.4	6.5	7.2	8.4	6.5	7.1	8.0	6.1	7.0

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	17.5	16.0	17.0	13.0	10.5	11.0	7.0	6.5	6.5	7.0	4.5	5.5
2	19.0	16.5	17.5	12.5	9.5	10.5	7.0	6.0	6.5	7.5	7.0	7.0
3	17.0	15.5	16.0	12.0	9.5	10.5	7.5	6.5	7.0	---	---	---
4	17.0	16.0	16.5	11.0	10.0	10.5	8.0	7.5	8.0	---	---	---
5	17.5	16.5	17.0	13.0	10.5	11.5	---	---	---	---	---	---
6	17.5	16.5	17.0	14.5	12.5	13.0	---	---	---	---	---	---
7	17.0	15.5	16.0	14.0	12.5	13.0	---	---	---	---	---	---
8	16.0	15.0	15.5	13.0	12.0	13.0	---	---	---	2.5	2.5	2.5
9	16.5	14.0	14.5	13.0	11.0	11.5	---	---	---	3.0	1.5	2.0
10	14.5	14.0	14.5	13.0	10.0	11.0	---	---	---	3.5	1.5	2.5
11	---	---	---	13.0	11.0	11.5	---	---	---	3.5	1.5	2.5
12	---	---	---	12.5	11.0	12.0	5.5	5.0	5.0	3.5	1.5	2.5
13	---	---	---	12.0	11.0	11.5	6.0	4.5	5.0	5.0	3.0	4.0
14	---	---	---	13.0	11.0	12.0	5.5	4.5	5.0	6.0	3.0	4.5
15	---	---	---	13.5	12.5	13.0	6.0	4.5	5.0	3.0	1.5	2.0
16	13.5	13.0	13.0	12.5	11.0	12.0	6.0	4.5	5.0	4.5	1.5	3.0
17	13.5	12.5	13.0	12.0	11.0	11.5	6.0	4.5	5.5	3.0	2.0	2.5
18	12.5	10.5	12.0	13.5	11.5	12.5	5.0	4.0	4.5	3.5	.5	2.0
19	13.5	12.0	12.5	12.0	10.0	11.0	4.5	3.5	4.0	---	---	---
20	13.5	12.5	13.0	10.0	8.5	9.5	4.5	3.5	4.0	---	---	---
21	14.0	11.5	12.5	9.0	8.0	8.5	5.0	4.5	4.5	---	---	---
22	14.5	12.0	13.0	9.0	8.5	8.5	5.0	3.5	4.0	4.0	3.5	4.0
23	13.5	13.0	13.0	9.0	8.5	8.5	4.5	3.0	3.5	5.0	3.0	4.0
24	---	---	---	10.5	9.0	9.5	4.5	2.5	3.5	5.5	2.5	5.0
25	13.0	11.0	11.5	9.0	8.5	8.5	4.0	3.5	3.5	---	---	---
26	13.0	11.5	12.5	8.5	7.0	7.5	3.5	2.5	3.0	---	---	---
27	14.0	11.5	13.0	7.0	4.5	5.5	3.5	2.0	3.0	---	---	---
28	13.0	11.0	11.5	7.5	6.0	6.5	2.5	1.5	2.0	---	---	---
29	13.0	10.5	11.0	7.0	6.0	6.5	3.0	1.5	2.0	---	---	---
30	12.0	10.0	10.5	7.0	6.0	6.5	3.5	2.0	3.0	---	---	---
31	13.0	10.5	11.0	---	---	---	4.5	3.5	4.0	---	---	---
MONTH	19.0	10.0	14.0	14.5	4.5	10.5	8.0	1.5	4.5	7.5	.5	3.5

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	5.5	3.0	4.5	17.5	15.0	16.5	19.5	15.5	17.5
2	---	---	---	6.5	4.5	5.5	15.5	12.5	13.0	18.5	13.5	16.0
3	---	---	---	6.0	5.0	5.5	13.0	12.0	12.5	17.5	14.5	16.0
4	---	---	---	7.0	5.5	6.0	12.0	10.5	11.0	18.5	16.0	17.5
5	3.0	1.0	2.0	7.5	6.5	7.0	14.0	11.0	12.5	20.0	15.5	17.5
6	4.0	1.0	2.0	7.5	7.0	7.5	17.0	12.0	14.0	20.0	15.5	18.0
7	2.0	1.0	1.5	---	---	---	---	---	---	20.5	18.5	19.0
8	4.0	1.5	2.5	---	---	---	---	---	---	---	---	---
9	4.0	.5	1.5	---	---	---	---	---	---	25.5	21.5	24.0
10	3.5	1.0	2.0	---	---	---	12.0	10.0	11.5	24.0	20.5	22.5
11	3.5	.5	2.0	---	---	---	13.5	7.5	11.0	25.0	20.5	23.0
12	2.5	.5	1.5	---	---	---	12.5	11.0	12.0	22.5	19.5	20.5
13	2.0	.0	.5	---	---	---	12.0	9.5	11.0	20.0	19.0	19.5
14	1.0	.5	1.0	---	---	---	10.0	8.5	9.5	19.0	17.5	18.5
15	1.5	.0	1.0	---	---	---	12.5	9.0	10.5	21.5	17.0	19.0
16	1.5	.0	.5	---	---	---	11.0	9.0	10.0	21.0	17.0	19.0
17	2.0	.0	.5	---	---	---	11.5	9.0	10.5	20.5	16.0	18.0
18	1.5	.5	1.0	---	---	---	15.0	9.0	11.5	18.0	16.0	17.0
19	1.0	.0	.5	---	---	---	15.5	9.5	12.5	17.5	16.0	16.5
20	---	---	---	---	---	---	16.0	10.0	13.0	18.5	16.0	17.0
21	---	---	---	---	---	---	17.0	11.0	14.5	18.0	16.5	17.0
22	---	---	---	---	---	---	16.5	12.5	14.5	20.5	17.0	18.5
23	---	---	---	---	---	---	18.0	13.5	16.0	19.5	17.5	18.5
24	---	---	---	---	---	---	16.0	14.0	15.0	19.0	17.5	18.0
25	---	---	---	---	---	---	20.0	14.5	17.0	20.0	18.0	19.0
26	---	---	---	---	---	---	18.5	16.5	18.0	18.5	16.5	17.5
27	---	---	---	8.5	7.0	8.0	18.0	16.0	17.0	16.5	15.0	16.0
28	5.0	3.0	4.0	10.5	5.0	8.0	17.0	14.0	15.5	17.5	15.5	16.0
29	---	---	---	13.5	8.0	11.0	19.5	14.0	16.5	18.0	14.5	16.0
30	---	---	---	16.5	12.0	14.0	19.5	13.5	17.0	19.0	15.5	17.5
31	---	---	---	18.0	14.0	16.0	---	---	---	19.0	16.5	17.5
MONTH	5.0	.0	1.5	18.0	3.0	8.5	20.0	7.5	13.5	25.5	13.5	18.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.5	17.0	18.0	23.0	20.0	21.0	27.5	24.0	25.5	25.0	22.0	23.5
2	---	---	---	21.0	19.0	20.0	27.0	24.5	25.5	26.0	23.0	24.0
3	---	---	---	23.0	18.5	20.5	26.0	23.5	25.0	25.0	23.5	24.0
4	18.5	17.0	17.5	21.0	17.0	18.5	28.0	24.5	26.0	26.5	22.5	24.0
5	21.0	16.5	18.0	19.5	15.5	17.5	28.0	24.0	26.0	25.0	23.5	24.0
6	19.5	18.0	19.0	20.5	16.0	18.0	28.0	24.0	26.0	24.5	23.5	24.0
7	22.0	18.0	19.5	20.5	16.5	18.5	26.5	22.5	24.5	25.0	22.5	23.5
8	22.5	18.5	20.5	22.0	17.0	19.5	27.5	23.0	25.0	23.5	21.5	22.5
9	22.0	19.0	20.5	22.5	18.0	20.5	27.5	23.0	25.0	22.0	19.5	21.0
10	23.5	19.5	21.0	21.5	18.5	20.0	28.0	23.5	25.5	21.5	18.5	20.0
11	21.0	18.0	19.0	23.5	19.0	21.5	25.0	22.0	23.5	21.5	19.5	20.5
12	20.0	16.0	18.0	24.5	21.0	22.5	22.0	18.5	19.5	21.5	18.5	20.0
13	20.0	15.5	18.0	26.5	21.5	24.0	22.0	18.0	20.0	22.5	19.0	20.5
14	20.5	15.5	18.0	26.5	23.0	24.5	23.5	19.5	21.5	22.5	21.0	21.5
15	21.5	16.5	19.0	26.5	22.5	24.5	22.0	19.5	20.5	22.0	19.0	20.5
16	22.0	18.0	20.0	26.5	23.0	25.0	22.0	18.5	20.0	20.0	17.0	18.5
17	21.5	18.5	20.0	27.0	23.0	25.0	21.5	17.5	19.5	20.0	16.5	18.5
18	22.5	19.5	21.0	25.0	23.0	24.0	19.5	18.5	19.0	21.0	17.0	19.0
19	23.0	18.5	20.5	26.0	22.0	24.0	23.0	19.5	21.0	21.5	18.0	19.5
20	23.5	18.5	21.0	25.0	23.0	24.0	24.0	20.5	22.0	18.5	15.5	17.0
21	22.0	18.0	20.0	23.5	22.0	22.5	23.5	21.5	22.0	---	---	---
22	20.5	18.5	19.5	24.0	20.5	22.5	24.5	20.0	22.0	---	---	---
23	22.0	18.5	20.0	25.0	22.5	23.5	23.5	21.0	22.0	---	---	---
24	21.0	18.0	19.0	25.0	22.5	24.0	22.5	22.0	22.0	---	---	---
25	21.0	16.0	18.5	27.0	23.0	25.0	---	---	---	---	---	---
26	21.5	16.5	19.0	26.0	24.0	25.0	---	---	---	---	---	---
27	22.0	17.0	19.5	25.5	23.0	24.0	---	---	---	19.0	17.5	18.5
28	21.5	18.5	20.0	26.0	22.0	24.0	26.0	23.5	25.0	19.0	17.5	18.5
29	22.0	18.5	20.5	24.0	22.5	23.5	26.0	23.5	24.5	20.0	18.5	19.5
30	23.5	20.0	21.5	24.5	21.5	23.0	25.5	22.5	24.0	19.5	19.0	19.0
31	---	---	---	26.5	23.0	24.5	26.0	22.5	24.0	---	---	---
MONTH	23.5	15.5	19.5	27.0	15.5	22.5	28.0	17.5	23.0	26.5	15.5	21.0

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	12.7	8.4	9.9	12.9	11.0	11.7	12.2	11.3	11.9
2	11.2	6.6	9.0	13.0	8.6	10.2	13.6	10.9	12.0	11.3	10.8	11.0
3	11.6	6.6	8.5	13.0	8.7	10.1	13.0	10.6	11.5	12.9	11.0	12.3
4	9.0	6.6	7.3	10.3	8.0	9.0	10.8	9.7	10.3	14.0	11.3	12.9
5	9.9	6.2	7.6	12.7	7.9	9.5	10.8	9.7	10.4	13.1	12.5	12.8
6	8.6	5.9	7.2	13.4	8.3	10.9	12.0	10.3	11.0	12.9	11.7	12.5
7	9.0	7.6	8.1	13.1	8.2	9.8	12.6	10.1	11.1	12.7	11.8	12.3
8	9.7	7.8	8.7	11.6	7.9	9.3	11.4	8.7	10.0	12.9	11.7	12.6
9	10.6	8.3	9.3	13.9	8.5	10.4	---	---	---	13.4	12.7	13.0
10	10.3	8.4	9.2	14.4	9.0	10.9	---	---	---	13.4	12.7	13.0
11	10.0	8.0	9.0	15.3	8.7	11.0	---	---	---	13.4	12.8	13.0
12	9.7	8.1	8.8	15.0	8.5	10.6	12.9	11.9	12.2	13.4	12.8	13.0
13	9.3	8.7	9.0	12.7	8.3	9.8	12.6	11.5	12.1	12.9	11.9	12.5
14	8.8	8.5	8.7	15.7	7.9	10.9	12.6	11.6	12.1	12.9	12.0	12.3
15	9.4	8.7	9.0	14.7	7.3	9.8	12.6	11.6	12.1	13.6	12.9	13.2
16	10.3	9.0	9.6	13.7	7.6	9.7	12.8	11.5	12.1	13.3	12.6	12.9
17	10.2	9.0	9.7	10.6	8.2	9.3	12.4	11.5	11.8	13.1	12.5	12.8
18	11.9	9.1	10.7	9.9	8.1	9.0	12.9	11.8	12.2	13.4	12.5	13.0
19	11.3	10.7	11.0	12.2	9.0	10.3	13.2	11.8	12.4	---	---	---
20	11.0	10.7	10.8	13.3	9.5	11.0	12.6	11.8	12.3	---	---	---
21	11.6	10.7	11.1	13.2	10.2	11.3	12.2	11.6	11.9	---	---	---
22	11.2	10.3	10.7	13.2	10.2	11.2	13.0	11.9	12.3	---	---	---
23	10.7	10.3	10.5	12.3	10.1	10.9	13.5	11.9	12.5	---	---	---
24	---	---	---	13.3	9.7	11.0	13.6	11.9	12.6	---	---	---
25	11.9	8.9	10.6	12.8	9.7	10.8	12.2	11.9	12.1	---	---	---
26	10.5	8.3	9.3	14.1	10.1	11.7	13.1	12.1	12.5	---	---	---
27	10.9	7.8	9.1	13.3	10.8	12.1	13.3	12.1	12.7	---	---	---
28	11.9	8.9	10.0	13.8	11.0	12.0	13.6	12.8	13.1	---	---	---
29	12.4	8.9	10.3	14.1	11.0	12.1	13.7	12.8	13.2	---	---	---
30	13.0	9.0	10.6	12.3	10.9	11.5	13.7	12.6	13.1	---	---	---
31	12.1	8.4	9.7	---	---	---	12.9	12.2	12.6	---	---	---
MONTH	13.0	5.9	9.4	15.7	7.3	10.5	13.7	8.7	12.0	14.0	10.8	12.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.6	12.5	12.6	13.2	12.6	12.9	13.9	8.1	10.3	14.5	6.7	10.0
2	12.9	12.4	12.7	12.9	12.4	12.6	11.9	8.5	10.0	14.6	7.6	10.7
3	13.0	12.4	12.7	12.9	12.5	12.7	12.2	9.6	10.5	13.8	6.9	9.7
4	12.8	12.1	12.5	12.8	12.2	12.6	12.3	9.7	10.7	12.5	6.4	8.8
5	13.7	12.3	13.1	12.3	11.8	12.1	12.1	9.2	10.7	11.6	5.7	8.3
6	14.9	13.4	13.7	11.9	11.8	11.9	11.7	9.2	10.3	10.5	4.6	7.5
7	13.5	13.2	13.4	---	---	---	---	---	---	7.0	4.4	5.1
8	13.5	13.2	13.3	---	---	---	---	---	---	---	---	---
9	13.6	13.3	13.5	---	---	---	---	---	---	12.5	5.3	8.4
10	13.8	13.5	13.7	---	---	---	12.7	10.0	11.1	12.1	5.2	7.9
11	13.8	13.6	13.7	---	---	---	13.3	9.3	11.3	11.8	5.2	7.8
12	13.8	13.4	13.7	13.3	11.7	12.6	12.7	9.3	10.8	8.9	5.3	7.0
13	15.3	13.4	13.8	12.8	10.7	11.8	12.6	9.6	10.9	9.0	6.5	7.4
14	15.5	13.4	13.6	10.7	9.8	10.4	11.2	10.3	10.6	8.0	6.4	7.2
15	13.5	13.0	13.3	11.6	10.1	11.0	12.1	9.8	10.9	11.1	7.0	8.6
16	13.5	13.0	13.3	---	---	---	12.5	9.8	11.0	10.8	7.3	8.8
17	13.9	13.5	13.8	---	---	---	12.9	9.9	11.2	10.9	7.0	8.8
18	14.0	13.6	13.8	---	---	---	13.4	9.1	11.1	10.1	6.9	8.3
19	13.6	13.2	13.5	---	---	---	13.5	8.9	11.0	9.3	7.7	8.8
20	---	---	---	---	---	---	13.8	8.5	10.9	10.1	8.2	9.0
21	---	---	---	---	---	---	14.2	8.0	10.8	9.7	7.9	8.8
22	---	---	---	---	---	---	14.6	8.0	10.9	10.6	7.6	8.9
23	---	---	---	---	---	---	14.8	7.9	10.9	10.0	7.6	8.5
24	---	---	---	---	---	---	13.9	7.9	10.7	8.6	7.5	8.3
25	---	---	---	---	---	---	14.7	7.3	10.5	8.6	7.9	8.2
26	---	---	---	---	---	---	13.3	7.3	9.4	9.2	8.2	8.8
27	---	---	---	13.9	11.2	12.8	10.2	7.6	9.0	9.8	8.9	9.3
28	13.5	12.8	13.0	14.0	10.5	12.2	12.1	8.2	9.8	9.8	8.9	9.3
29	---	---	---	13.8	9.3	11.6	12.6	7.6	9.9	9.8	8.4	9.1
30	---	---	---	13.8	8.6	11.0	12.4	6.8	9.5	9.4	8.1	8.8
31	---	---	---	13.8	8.1	10.4	---	---	---	9.6	8.1	8.7
MONTH	15.5	12.1	13.3	14.0	8.1	11.9	14.8	6.8	10.5	14.6	4.4	8.5

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.2	8.1	8.6	9.3	6.1	7.5	8.7	6.2	7.2	9.3	4.8	6.5
2	---	---	---	8.9	6.9	7.8	8.7	6.1	7.0	8.9	4.5	6.1
3	---	---	---	10.1	6.8	8.1	7.6	6.1	6.9	8.8	4.6	6.1
4	8.7	8.2	8.5	9.0	6.7	7.9	8.2	6.1	7.0	9.0	4.6	6.6
5	9.0	7.8	8.4	10.1	7.6	8.7	8.6	5.9	7.1	8.6	4.6	6.2
6	8.4	7.3	7.9	10.0	7.3	8.5	9.0	5.9	7.1	7.1	6.3	6.8
7	7.7	6.1	7.1	9.7	7.2	8.3	10.4	5.8	7.6	7.5	6.9	7.2
8	7.2	6.1	6.7	10.3	6.8	8.3	10.7	5.8	7.7	8.0	7.0	7.5
9	---	---	---	10.0	6.5	8.0	10.9	5.5	7.5	8.6	7.3	8.0
10	---	---	---	10.6	6.4	8.1	11.8	4.9	7.5	8.8	7.5	8.1
11	---	---	---	10.8	6.7	8.5	8.9	4.9	6.9	8.6	7.2	7.9
12	9.7	8.0	8.9	11.2	6.5	8.3	8.3	6.3	7.4	9.0	7.2	8.0
13	9.9	8.0	8.9	11.2	6.1	8.1	9.0	7.3	8.3	9.3	7.4	8.1
14	10.2	7.7	8.9	10.8	6.0	7.5	9.6	7.0	8.0	8.4	6.8	7.6
15	10.4	7.4	8.8	9.5	6.0	7.4	9.8	6.9	8.2	9.2	7.0	8.1
16	10.3	7.3	8.6	9.4	5.9	7.2	10.5	7.2	8.4	9.7	7.6	8.5
17	10.2	7.2	8.4	9.7	5.4	7.1	11.3	5.9	8.6	9.9	7.7	8.6
18	10.2	7.1	8.5	9.6	6.1	7.5	9.2	5.8	7.4	10.9	7.8	8.9
19	10.9	7.1	8.7	9.2	6.5	7.7	10.3	6.2	7.9	10.8	7.6	8.8
20	11.5	7.1	8.9	9.6	6.5	7.6	10.5	5.7	7.5	11.6	7.9	9.4
21	11.9	7.1	8.9	7.4	6.5	7.0	10.8	5.6	7.4	---	---	---
22	11.1	6.9	8.6	8.7	7.0	7.9	11.5	5.9	8.0	---	---	---
23	---	---	---	8.5	6.7	7.5	11.0	5.7	7.6	---	---	---
24	---	---	---	8.8	6.7	7.6	---	---	---	---	---	---
25	10.1	7.4	8.9	9.1	6.3	7.5	---	---	---	---	---	---
26	10.1	7.4	8.6	8.8	6.2	7.2	---	---	---	---	---	---
27	10.3	7.2	8.5	8.3	6.3	7.2	---	---	---	10.0	8.9	9.5
28	10.3	7.1	8.5	9.1	6.4	7.5	10.1	5.3	7.7	9.9	8.6	9.2
29	10.4	7.0	8.4	8.4	6.4	7.2	10.2	5.2	6.8	9.6	8.3	8.9
30	10.5	6.5	8.1	8.0	6.3	7.3	7.9	5.4	6.6	8.8	8.1	8.5
31	---	---	---	8.4	6.3	7.2	9.0	5.2	6.6	---	---	---
MONTH	11.9	6.1	8.5	11.2	5.4	7.7	11.8	4.9	7.5	11.6	4.5	7.9

CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA

LOCATION.--Lat 39°52'11", long 75°35'37", Delaware County, Hydrologic Unit 02040205, on left bank 27 ft (8 m) upstream from Penn Central Railroad bridge at Chadds Ford, 150 ft (46 m) upstream from Harvey Run and 1,200 ft (370 m) downstream from highway bridge on U.S. Highway 1.

DRAINAGE AREA.--287 mi² (743 km²), including that of Harvey Run.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD--August 1911 to December 1953, October 1962 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1202: 1919-20, 1932-33, 1936, 1938(P), 1942, (maximum only, 1917-18, 1922-31, 1934, 1939, 1944-46). WDR PA-72: 1971.

GAGE.--Water-stage recorder. Datum of gage is 150.45 ft (45.857 m) National Geodetic Vertical Datum of 1929. Prior to May 21, 1927, nonrecording gage at same site and datum.

REMARKS.--Records fair. Flow regulated by Marsh Creek Reservoir (station 01480684) about 17 mi (27 km) upstream.

AVERAGE DISCHARGE.--59 years, (1911-53, 1962-79), 398 ft³/s (11.27 m³/s), 18.84 in/yr (479 mm/yr), adjusted for storage since November 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,800 ft³/s (674 m³/s) June 22, 1972, gage height, 16.56 ft (5.047 m) from rating curve extended above 9,000 ft³/s (255 m³/s) on basis of area-velocity study; minimum, 4.9 ft³/s (0.14 m³/s) Oct. 2, 1941, gage height, 0.28 ft (0.085 m); minimum daily, 42 ft³/s (1.19 m³/s) Sept. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,400 ft³/s (464 m³/s) Jan. 25, gage height, 14.35 ft (4.374 m); minimum, 164 ft³/s (4.64 m³/s) Nov. 11, 13, 14, 15, gage height, 1.50 ft (0.457 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	193	169	600	575	990	1510	505	475	585	500	264	281
2	198	185	291	1050	895	1350	535	445	880	352	273	228
3	185	185	259	1560	690	1200	575	445	2140	314	555	232
4	202	177	540	625	680	1050	615	475	1590	291	425	219
5	210	185	620	560	615	1090	720	465	1010	342	264	237
6	390	185	430	545	520	1510	575	415	875	282	246	5690
7	304	181	314	700	565	1160	520	395	770	264	232	1220
8	219	181	309	3500	555	885	490	380	695	255	220	665
9	286	177	2740	1500	525	800	625	371	640	250	219	525
10	296	177	1630	840	465	770	996	356	615	241	215	425
11	246	172	695	735	490	1150	655	352	780	241	241	371
12	277	177	580	630	456	805	595	337	645	241	705	333
13	430	177	455	685	490	690	620	445	585	232	795	352
14	520	177	425	910	470	690	940	615	510	237	323	450
15	495	177	385	810	510	635	810	510	475	259	259	605
16	455	198	376	585	500	585	665	380	455	259	241	308
17	695	202	371	545	485	570	625	337	435	337	232	277
18	277	425	352	515	430	565	580	380	495	250	232	264
19	224	277	333	445	356	590	545	700	405	291	273	268
20	210	206	326	585	595	620	530	635	380	286	241	250
21	198	185	500	7120	590	610	510	475	371	2160	220	347
22	190	181	470	3820	790	685	510	425	361	1130	224	6800
23	193	181	319	1100	815	595	485	570	890	435	210	1420
24	189	202	320	4190	3120	775	470	2660	485	376	232	921
25	199	190	1910	8260	7340	805	470	1490	405	304	241	758
26	193	177	650	1940	8480	635	520	990	356	319	250	676
27	228	169	455	1610	2650	570	750	805	323	376	228	606
28	219	224	410	1420	1650	540	710	720	314	282	585	562
29	198	255	380	1250	---	535	580	665	333	264	255	575
30	189	575	366	1120	---	525	525	645	319	510	865	1270
31	188	---	390	1050	---	505	---	595	---	410	286	---
TOTAL	8235	6377	17971	51500	36631	24925	18251	18953	18992	12250	10027	27167
MEAN	266	213	580	1661	1308	804	608	611	633	395	323	906
MAX	695	575	2740	8260	8480	1510	996	2660	2140	2160	865	6800
MIN	185	172	291	445	356	505	470	337	314	232	210	219
MEAN#	222	226	592	1665	1344	794	609	608	635	395	322	905
CFSM#	.77	.78	2.06	5.80	4.68	2.77	2.12	2.12	2.21	1.38	1.12	3.15
IN#	.89	.87	2.38	6.69	4.88	3.19	2.37	2.44	2.47	1.59	1.29	3.52

CAL YR 1978 TOTAL 223413 MEAN 612 MAX 10600 MIN 172 MEAN# 610 CFSM# 2.12 IN# 28.84
WTR YR 1979 TOTAL 251359 MEAN 689 MAX 8480 MIN 172 MEAN# 689 CFSM# 2.40 IN# 32.58

Adjusted for change in contents in Marsh Creek Reservoir.

CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1963 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1965 to current year.
pH: October 1965 to September 1966, December 1971 to current year.
WATER TEMPERATURES: October 1964 to current year.
DISSOLVED OXYGEN: October 1971 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 445 micromhos Oct. 25, 1971; minimum, 49 micromhos Feb. 26, 1979.
pH: Maximum, 9.8 Apr. 9, 1975; minimum, 6.1 Feb. 22, 1976.
WATER TEMPERATURES: Maximum, 31.0°C Jul. 18, 19, 1977; minimum daily, freezing point on many days during winter months.
DISSOLVED OXYGEN: Maximum, 17.1 mg/L Dec. 5, 1976; minimum, 4.7 mg/L July 10, 1975.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum 371 micromhos Jan. 14; minimum, 49 micromhos Feb. 26.
pH: Maximum, 9.3 Apr. 23; minimum, 6.7 Sept. 22, 30.
WATER TEMPERATURES: Maximum, 28.0°C July 16, Aug. 5, 6, 10; minimum, 0.5°C Dec. 20, Jan. 4, 5, 12.
DISSOLVED OXYGEN: Maximum, 14.6 mg/L Feb. 8; minimum, 5.5 mg/L July 22.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT								
02...	1400	185	247	8.1	17.5	11.1	120	1.9
09...	1300	202	226	7.5	13.0	10.5	4400	3.5
16...	1400	440	193	7.4	12.5	10.3	730	3.9
23...	1400	193	242	7.5	15.0	10.2	75	2.9
30...	1330	181	243	7.5	12.0	11.2	56	3.1
NOV								
03...	1430	185	300	7.7	10.5	12.8	--	--
06...	1430	185	241	7.6	13.5	10.9	87	3.2
13...	1330	172	238	7.5	11.0	11.0	410	--
20...	1430	210	224	7.6	10.0	11.5	2000	--
28...	1430	215	221	7.6	4.5	13.1	390	2.9
DEC								
04...	1330	650	225	7.3	10.0	11.0	2600	3.9
11...	1400	585	186	7.3	4.0	12.8	1600	3.0
18...	1400	356	221	7.2	4.5	12.5	140	--
27...	1230	445	201	7.2	3.0	12.9	1000	5.0
JAN								
02...	1100	1320	183	7.2	9.0	10.9	2800	5.0
08...	1100	3500	122	7.0	2.5	12.8	3600	9.1
15...	1200	770	193	7.1	2.0	13.3	1100	3.0
22...	1130	2250	96	7.0	3.0	12.9	3000	6.0
29...	1400	1230	174	7.3	6.1	12.3	1400	4.0
FEB								
05...	1400	590	182	7.3	2.0	13.4	200	1.6
12...	1100	347	196	7.4	1.0	13.7	700	1.5
22...	1130	740	247	7.2	1.0	14.0	920	3.1
27...	1330	2150	113	6.9	4.6	13.0	1800	11
MAR								
11...	1100	1320	180	7.4	4.0	12.8	--	5.7
21...	1430	610	191	7.9	11.5	12.5	83	2.9
27...	1300	560	185	7.7	7.5	12.7	68	2.9
APR								
02...	1330	555	191	7.5	13.5	10.5	11000	3.7
10...	1330	1000	153	7.4	9.0	11.6	2200	5.7
17...	1300	600	179	7.5	11.0	12.7	500	6.1
22...	1400	485	180	8.7	15.0	13.1	400	4.0
MAY								
01...	1400	505	188	8.1	17.5	11.4	--	1.6
08...	1200	395	192	7.4	19.2	9.0	250	3.4
15...	1430	470	175	7.3	19.5	8.5	--	3.8
22...	1430	400	189	7.2	19.5	8.7	4000	3.7
29...	1430	655	165	7.2	17.0	9.0	1500	4.1
JUN								
06...	1430	875	196	7.3	20.0	8.4	7700	3.2
13...	1430	550	199	7.4	19.0	9.3	1000	1.5
19...	1400	410	197	7.8	22.0	9.9	35000	3.0
25...	1430	395	201	7.4	19.0	9.4	6700	3.2

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	CARBON, ORGANIC TOTAL (MG/L AS C)
JUL								
10...	1330	255	224	7.6	22.5	8.9	1000	4.8
17...	1430	282	211	7.8	26.5	7.5	5200	3.0
24...	1330	380	230	7.3	24.0	7.6	8700	4.5
31...	1100	347	179	7.2	24.5	7.3	8100	6.0
AUG								
07...	1330	241	223	7.7	26.0	8.9	490	5.0
14...	1430	318	166	7.5	22.0	9.0	24000	5.4
22...	1130	241	282	7.7	22.0	9.1	2700	3.7
29...	1130	259	201	7.2	25.0	7.3	3700	4.9
SEP								
04...	1300	224	232	7.5	26.0	8.2	6400	2.5
11...	1400	371	214	7.3	19.5	8.8	37000	4.5
18...	1400	250	211	7.8	20.0	10.3	310	1.9
25...	1230	760	173	7.2	17.0	9.2	29000	4.9

DATE	TIME	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV												
03...	1430	93	39	23	8.7	11	3.0	66	0	54	2.1	25

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)
NOV												
03...	18	.1	10	152	132	2.6	.03	2.6	.09	.20	.29	2.9

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	NICKEL, DIS-SOLVED (UG/L AS NI)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV											
03...	.240	.23	0	0	0	3	170	3	60	1	0

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	254	247	251	254	244	249	203	195	199	211	198	206
2	255	247	251	254	250	252	220	203	208	183	142	177
3	249	240	244	254	250	252	228	220	224	176	141	158
4	252	247	249	253	246	249	229	192	219	199	177	190
5	254	249	252	252	245	247	192	174	183	204	199	202
6	270	200	238	253	241	248	202	174	188	207	201	203
7	219	180	191	247	238	242	215	203	210	225	203	214
8	223	194	212	243	238	240	218	213	216	236	117	148
9	231	223	227	244	237	241	218	211	215	180	131	158
10	236	229	232	245	238	241	---	---	---	196	181	189
11	243	221	231	245	238	241	---	---	---	199	195	197
12	226	219	222	245	239	242	200	198	199	204	199	201
13	224	208	211	247	234	241	206	201	204	227	202	209
14	238	199	205	241	238	240	207	206	206	371	238	280
15	210	195	201	238	233	235	209	206	208	244	192	210
16	197	189	194	239	231	234	211	209	210	206	198	202
17	196	189	192	240	236	238	209	206	208	200	195	197
18	216	190	200	240	211	228	221	207	214	215	197	204
19	233	217	224	208	199	202	223	217	220	211	206	209
20	242	231	236	232	208	221	224	218	221	208	187	202
21	243	236	240	237	231	233	248	219	227	196	78	125
22	249	235	242	236	230	233	244	209	215	134	76	101
23	250	242	246	242	235	238	228	216	221	165	135	155
24	250	243	247	241	233	238	232	208	225	170	67	130
25	254	249	251	232	225	228	205	126	151	136	64	93
26	259	249	252	229	224	227	187	149	167	174	136	153
27	259	246	250	231	221	225	203	188	199	176	164	167
28	250	233	244	236	218	223	210	204	207	175	164	167
29	245	230	237	269	237	253	211	208	210	183	172	176
30	245	241	243	249	200	219	215	210	212	175	169	172
31	244	235	238	---	---	---	212	205	209	172	169	170
MONTH	270	180	231	269	199	237	248	126	207	371	64	180

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	178	170	173	156	143	147	192	186	190	188	178	185
2	173	171	172	160	156	157	192	187	190	189	183	186
3	190	171	184	165	159	161	191	184	187	192	184	189
4	189	182	185	168	165	166	186	180	183	194	188	191
5	186	182	183	170	166	168	185	180	183	191	188	190
6	205	187	196	173	160	168	---	---	---	195	185	189
7	206	187	193	178	172	174	---	---	---	193	184	188
8	194	187	190	182	178	180	---	---	---	193	187	190
9	208	194	199	183	178	181	---	---	---	197	191	194
10	202	196	198	183	179	181	158	151	153	202	196	199
11	203	198	200	182	164	174	179	158	174	204	196	201
12	202	193	197	184	166	178	186	179	183	209	200	203
13	196	191	193	188	183	185	188	183	186	211	192	203
14	196	190	193	189	185	187	185	156	174	193	177	185
15	195	186	190	187	183	185	170	156	162	181	175	179
16	190	185	187	190	184	187	178	170	174	188	182	186
17	198	187	191	190	185	187	181	178	179	197	186	192
18	202	195	198	189	185	187	180	178	179	200	185	196
19	202	187	195	189	183	186	183	179	181	190	167	176
20	191	185	188	192	187	190	184	180	183	171	165	167
21	193	184	187	191	186	188	185	182	184	180	170	177
22	255	190	229	191	185	188	190	178	184	191	181	189
23	301	230	260	193	187	190	183	174	179	194	138	188
24	233	95	172	191	180	186	185	175	182	144	100	120
25	91	67	74	186	175	179	186	180	183	158	131	150
26	85	49	60	184	178	181	187	178	184	177	144	166
27	129	86	111	187	184	186	182	171	176	179	174	176
28	150	129	138	188	185	186	176	166	170	176	173	174
29	---	---	---	190	185	187	178	169	175	176	161	171
30	---	---	---	190	185	188	180	175	178	170	160	167
31	---	---	---	189	185	187	---	---	---	172	168	170
MONTH	301	49	180	193	143	180	192	151	179	211	100	182

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	174	168	171	213	203	207	215	193	207	233	213	223
2	180	130	169	206	203	204	234	215	226	244	233	238
3	134	82	109	212	204	210	233	164	182	243	241	242
4	147	112	135	215	208	211	204	174	193	241	230	236
5	166	147	160	214	207	210	228	199	217	233	218	229
6	196	163	177	214	206	211	236	219	230	---	---	---
7	201	194	198	218	214	216	229	223	226	---	---	---
8	202	198	200	224	215	220	229	223	227	---	---	---
9	206	200	203	221	217	219	238	225	231	---	---	---
10	206	202	203	224	215	220	242	225	233	---	---	---
11	204	185	197	225	220	223	245	229	236	---	---	---
12	202	189	196	227	220	224	230	161	212	---	---	---
13	205	196	201	228	221	224	168	142	153	217	205	209
14	203	198	200	230	222	227	185	166	176	209	189	206
15	203	200	202	239	216	230	197	181	189	194	170	185
16	206	202	204	227	195	219	211	197	204	204	188	196
17	212	203	207	216	180	206	213	202	208	214	204	211
18	207	198	204	221	209	215	212	203	207	219	211	213
19	205	193	201	233	202	216	210	200	205	216	212	213
20	202	197	200	219	202	214	200	191	194	218	213	216
21	206	198	203	217	107	162	203	194	197	218	175	215
22	209	203	206	215	110	173	206	198	203	195	62	81
23	217	151	174	236	216	227	207	201	204	158	104	138
24	180	153	167	235	227	230	208	195	202	171	157	164
25	202	180	193	239	231	236	207	201	205	176	171	173
26	210	201	207	234	229	235	205	191	198	177	174	176
27	212	209	211	230	219	225	199	190	195	183	175	180
28	214	210	212	227	221	223	218	196	206	185	182	184
29	221	211	217	233	224	230	216	201	205	185	182	183
30	215	209	213	240	202	227	223	141	172	185	55	136
31	---	---	---	201	176	184	212	160	185	---	---	---
MONTH	221	82	191	240	107	215	245	141	204	244	55	193

PH (UNITS), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.3	7.6	7.9	7.6	7.5	7.5	7.5	7.5	7.5	7.4	7.4	7.4
2	8.1	7.6	7.8	7.7	7.5	7.6	7.6	7.5	7.6	7.4	7.2	7.4
3	8.4	7.7	8.1	7.7	7.5	7.6	7.6	7.5	7.6	7.4	7.3	7.3
4	8.0	7.6	7.7	7.6	7.4	7.5	7.5	7.3	7.5	7.4	7.4	7.4
5	7.8	7.5	7.6	7.6	7.4	7.5	7.4	7.3	7.4	7.5	7.4	7.4
6	7.7	7.4	7.5	7.7	7.5	7.5	7.4	7.3	7.4	7.5	7.4	7.5
7	7.4	7.3	7.4	7.6	7.5	7.5	7.5	7.4	7.4	7.5	7.4	7.4
8	7.5	7.3	7.4	7.5	7.4	7.5	7.4	7.4	7.4	7.3	7.0	7.2
9	7.6	7.5	7.5	7.7	7.5	7.5	7.4	7.4	7.4	7.4	7.2	7.3
10	7.6	7.5	7.5	7.7	7.5	7.6	---	---	---	7.5	7.4	7.5
11	7.6	7.5	7.5	7.7	7.5	7.6	---	---	---	7.5	7.5	7.5
12	7.6	7.4	7.5	7.7	7.5	7.6	7.5	7.4	7.4	7.5	7.3	7.4
13	7.4	7.3	7.3	7.6	7.5	7.5	7.5	7.4	7.4	7.5	7.4	7.5
14	7.3	7.2	7.3	7.7	7.4	7.6	7.5	7.5	7.5	7.5	7.4	7.4
15	7.4	7.3	7.3	7.7	7.5	7.6	7.5	7.5	7.5	7.5	7.1	7.4
16	7.4	7.3	7.3	7.6	7.5	7.5	7.5	7.5	7.5	7.4	7.4	7.4
17	7.4	7.3	7.4	7.5	7.4	7.5	7.6	7.5	7.5	7.4	7.4	7.4
18	7.4	7.3	7.4	7.5	7.4	7.4	7.6	7.2	7.5	7.5	7.4	7.5
19	7.4	7.4	7.4	7.4	7.4	7.4	7.5	7.5	7.5	7.5	7.4	7.5
20	7.5	7.4	7.4	7.6	7.4	7.5	7.5	7.5	7.5	7.5	7.4	7.4
21	7.5	7.4	7.4	7.7	7.6	7.6	7.5	7.5	7.5	7.3	6.8	7.0
22	7.5	7.4	7.5	7.7	7.6	7.6	7.5	7.4	7.5	7.3	6.9	7.1
23	7.6	7.4	7.5	7.7	7.6	7.6	7.5	7.5	7.5	7.4	7.3	7.3
24	7.6	7.5	7.6	7.7	7.6	7.6	7.5	7.5	7.5	7.4	7.0	7.3
25	7.7	7.5	7.6	7.7	7.6	7.6	7.5	7.2	7.3	7.3	7.1	7.2
26	7.6	7.5	7.6	7.8	7.6	7.7	7.3	7.3	7.3	7.3	7.3	7.3
27	7.6	7.5	7.5	7.7	7.6	7.7	7.5	7.2	7.4	7.4	7.3	7.4
28	7.6	7.5	7.5	7.7	7.6	7.6	7.5	7.5	7.5	7.4	7.4	7.4
29	7.6	7.5	7.6	7.7	7.6	7.7	7.5	7.5	7.5	7.4	7.3	7.4
30	7.6	7.5	7.5	7.6	7.5	7.5	7.5	7.4	7.5	7.4	7.4	7.4
31	7.6	7.5	7.5	---	---	---	7.5	7.4	7.4	7.4	7.4	7.4
MONTH	8.4	7.2	7.5	7.8	7.4	7.6	7.6	7.2	7.5	7.5	6.8	7.4

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.5	7.4	7.4	7.3	7.2	7.2	9.0	7.5	8.4	8.9	7.6	8.3
2	7.5	7.4	7.4	7.3	7.2	7.3	8.8	7.4	7.8	9.0	7.7	8.5
3	7.5	7.4	7.4	7.3	7.3	7.3	8.1	7.4	7.7	8.9	7.8	8.4
4	7.5	7.4	7.4	7.3	7.3	7.3	7.8	7.4	7.6	8.6	7.5	8.1
5	7.5	7.3	7.4	7.3	7.3	7.3	8.1	7.4	7.7	8.8	7.5	8.1
6	7.4	7.4	7.4	7.3	7.2	7.3	---	---	---	8.7	7.6	8.2
7	7.4	7.4	7.4	7.3	7.3	7.3	---	---	---	8.6	7.6	8.2
8	7.4	7.4	7.4	7.3	7.3	7.3	---	---	---	8.5	7.4	8.0
9	7.4	7.4	7.4	7.4	7.3	7.3	---	---	---	8.2	7.5	7.9
10	7.4	7.4	7.4	7.4	7.3	7.3	7.6	7.4	7.5	7.8	7.4	7.6
11	7.4	7.3	7.4	7.4	7.3	7.4	8.2	7.3	7.7	7.6	7.3	7.4
12	7.4	7.3	7.4	7.5	7.4	7.4	8.0	7.4	7.7	7.4	7.3	7.3
13	7.4	7.4	7.4	7.5	7.4	7.4	7.9	7.3	7.6	7.3	7.3	7.3
14	7.4	7.4	7.4	7.5	7.4	7.4	7.7	7.4	7.5	7.3	7.2	7.2
15	7.4	7.4	7.4	7.6	7.4	7.5	7.8	7.3	7.5	7.4	7.2	7.3
16	7.4	7.4	7.4	7.6	7.5	7.5	8.0	7.3	7.6	7.5	7.3	7.4
17	7.4	7.4	7.4	7.6	7.4	7.5	8.5	7.4	7.9	7.5	7.3	7.4
18	7.4	7.3	7.4	7.7	7.4	7.5	8.8	7.6	8.2	7.5	7.3	7.4
19	7.4	7.3	7.3	7.7	7.4	7.6	8.9	7.6	8.3	7.4	7.3	7.4
20	7.3	7.3	7.3	7.9	7.5	7.6	9.0	7.6	8.4	7.4	7.3	7.4
21	7.3	7.3	7.3	8.4	7.5	7.9	9.1	7.7	8.5	7.4	7.3	7.3
22	7.4	7.2	7.3	8.6	7.6	8.1	9.2	7.7	8.6	7.5	7.2	7.3
23	7.4	7.4	7.4	8.8	7.6	8.2	9.3	7.8	8.7	7.4	6.9	7.3
24	7.4	7.0	7.2	8.4	7.5	7.7	9.1	7.9	8.6	7.2	6.9	7.0
25	7.0	7.0	7.0	8.3	7.4	7.8	9.1	7.6	8.5	7.2	7.1	7.2
26	7.1	7.0	7.0	8.6	7.5	8.0	9.0	7.7	8.4	7.3	7.2	7.2
27	7.2	6.9	7.1	8.6	7.6	8.1	8.2	7.3	7.5	7.4	7.3	7.3
28	7.2	7.2	7.2	8.7	7.6	8.1	8.0	7.3	7.6	7.4	7.3	7.3
29	---	---	---	8.9	7.5	8.3	8.7	7.4	8.0	7.4	7.2	7.3
30	---	---	---	9.1	7.5	8.4	8.8	7.5	8.2	7.4	7.3	7.3
31	---	---	---	9.1	7.7	8.6	---	---	---	7.4	7.3	7.3
MONTH	7.5	6.9	7.3	9.1	7.2	7.6	9.3	7.3	8.0	9.0	6.9	7.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.4	7.3	7.3	7.7	7.3	7.4	7.8	7.4	7.6	7.5	7.3	7.4
2	7.4	7.2	7.3	7.6	7.2	7.4	7.7	7.4	7.6	7.5	7.4	7.4
3	7.3	7.0	7.1	7.9	7.4	7.6	7.5	7.2	7.3	7.6	7.4	7.5
4	7.3	7.1	7.2	7.6	7.4	7.5	7.5	7.3	7.3	7.7	7.4	7.5
5	7.3	7.3	7.3	7.8	7.4	7.6	7.7	7.4	7.5	7.6	7.4	7.5
6	7.4	7.3	7.3	7.8	7.5	7.6	7.9	7.5	7.6	---	---	---
7	7.5	7.3	7.4	7.8	7.4	7.6	8.0	7.5	7.7	---	---	---
8	7.5	7.3	7.4	7.9	7.4	7.7	8.2	7.6	7.9	---	---	---
9	7.5	7.3	7.4	8.0	7.5	7.7	8.5	7.6	8.0	---	---	---
10	7.6	7.4	7.5	8.0	7.5	7.7	8.6	7.7	8.1	---	---	---
11	7.5	7.3	7.4	8.1	7.5	7.8	8.2	7.7	7.9	---	---	---
12	7.6	7.4	7.5	8.1	7.5	7.8	7.7	7.4	7.5	---	---	---
13	7.6	7.4	7.5	8.2	7.4	7.8	7.5	7.4	7.4	7.8	7.5	7.7
14	7.7	7.4	7.5	8.0	7.4	7.7	7.7	7.4	7.5	7.7	7.5	7.6
15	7.8	7.4	7.6	8.0	7.4	7.6	7.8	7.5	7.6	7.6	7.3	7.5
16	8.1	7.4	7.7	8.0	7.4	7.6	7.9	7.6	7.7	7.8	7.4	7.6
17	7.9	7.4	7.7	7.7	7.1	7.4	8.0	7.6	7.8	7.9	7.5	7.7
18	8.3	7.4	7.8	7.7	7.3	7.5	7.9	7.6	7.7	8.0	7.5	7.8
19	8.5	7.5	7.9	7.8	7.5	7.6	7.9	7.5	7.7	8.1	7.5	7.8
20	8.6	7.6	8.0	7.7	7.4	7.5	8.1	7.5	7.8	8.2	7.6	7.9
21	8.6	7.6	8.1	7.5	6.8	7.2	7.9	7.6	7.7	8.0	7.4	7.7
22	8.3	7.5	7.9	7.2	6.8	7.0	8.2	7.6	7.8	7.3	6.7	6.9
23	7.8	7.2	7.4	7.3	7.2	7.3	8.2	7.6	7.9	7.2	6.9	7.1
24	7.4	7.2	7.3	7.5	7.3	7.4	7.8	7.6	7.7	7.3	7.1	7.2
25	7.6	7.3	7.5	7.6	7.4	7.5	8.0	7.5	7.7	7.4	7.2	7.3
26	7.7	7.4	7.5	7.6	7.4	7.5	7.9	7.4	7.6	7.4	7.3	7.3
27	7.8	7.4	7.6	7.7	7.4	7.5	8.0	7.5	7.7	7.5	7.3	7.4
28	7.8	7.4	7.6	7.7	7.4	7.5	7.6	7.4	7.4	7.5	7.3	7.4
29	7.9	7.5	7.6	7.7	7.4	7.5	7.6	7.2	7.4	7.5	7.3	7.4
30	8.1	7.4	7.7	7.6	7.5	7.5	7.5	7.1	7.2	7.4	6.7	7.0
31	---	---	---	7.5	7.2	7.4	7.3	7.2	7.2	---	---	---
MONTH	8.6	7.0	7.5	8.2	6.8	7.5	8.6	7.1	7.6	8.2	6.7	7.5

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	17.0	15.0	16.0	12.5	11.0	12.0	7.0	6.0	6.5	9.0	5.0	6.5
2	17.5	16.0	16.5	12.0	10.5	11.0	6.0	5.0	5.5	10.0	8.5	9.5
3	16.5	15.0	16.0	11.5	9.5	10.5	7.0	5.5	6.0	8.0	1.0	4.0
4	16.0	15.5	15.5	11.0	10.0	10.5	11.5	7.0	9.5	1.0	.5	.5
5	16.0	15.0	15.5	12.5	10.0	11.5	11.5	9.5	10.5	2.0	.5	1.5
6	18.0	16.0	17.0	13.5	11.5	12.5	9.5	7.5	8.5	3.5	2.0	2.5
7	17.0	14.5	15.5	13.5	12.0	13.0	8.0	7.0	7.5	4.0	3.0	3.5
8	14.5	13.0	13.5	13.0	12.0	12.5	11.5	8.0	9.5	4.0	2.5	3.0
9	13.0	11.5	12.5	12.0	10.5	11.5	12.5	11.5	12.0	2.5	1.0	1.5
10	13.0	11.0	12.0	11.0	9.5	10.5	---	---	---	2.5	1.5	2.0
11	14.5	12.0	13.0	11.5	9.5	10.5	---	---	---	2.5	2.5	2.5
12	16.0	13.5	14.5	11.0	10.0	10.5	4.0	4.0	4.0	1.5	.5	1.0
13	16.0	14.0	15.0	11.0	10.5	10.5	5.0	3.5	4.5	4.0	1.5	2.5
14	15.5	14.5	15.5	13.0	11.0	12.0	5.0	4.0	4.5	5.0	4.0	4.5
15	14.5	13.0	14.0	14.0	13.0	13.5	4.5	3.5	4.0	4.0	1.5	2.5
16	13.5	12.0	13.0	13.5	11.5	12.5	5.0	3.5	4.5	3.5	1.5	2.5
17	14.0	12.5	13.5	12.0	11.0	11.5	6.0	5.0	5.5	3.5	2.5	3.0
18	13.5	11.5	12.5	15.0	12.0	13.5	5.0	4.0	4.5	2.5	1.0	2.0
19	13.5	12.0	12.5	13.5	10.5	12.0	4.5	3.0	3.5	1.0	1.0	1.0
20	14.0	13.0	13.5	10.5	8.5	9.5	3.5	3.0	3.0	1.5	1.0	1.0
21	13.5	11.5	13.0	8.5	7.5	8.0	6.0	3.5	5.0	2.0	1.5	1.5
22	14.5	12.0	13.0	7.5	7.5	7.5	5.0	4.0	4.5	4.0	2.0	3.0
23	15.5	13.0	14.0	8.0	7.5	7.5	4.0	3.0	3.5	4.5	3.0	4.0
24	15.0	13.0	14.0	9.5	8.0	9.0	4.0	2.5	3.0	5.5	4.5	5.0
25	12.5	11.0	12.0	9.0	7.5	8.0	5.0	4.0	4.5	4.0	3.0	3.5
26	13.0	11.5	12.5	7.5	6.0	6.5	4.0	3.0	3.5	5.5	3.5	4.5
27	14.5	13.0	13.5	6.0	4.0	4.5	3.5	2.5	3.0	6.5	5.0	5.5
28	13.5	12.0	13.0	5.0	4.0	4.5	2.0	1.0	1.5	6.0	5.0	5.0
29	13.0	11.0	12.0	5.5	4.0	4.5	1.5	.5	1.0	6.5	5.0	5.5
30	12.0	10.0	11.0	7.5	5.5	6.5	2.5	1.0	1.5	5.5	5.0	5.0
31	13.0	11.0	12.0	---	---	---	5.0	2.5	4.0	5.0	4.0	4.0
MONTH	18.0	10.0	14.0	15.0	4.0	10.0	12.5	.5	5.0	10.0	.5	3.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.5	2.5	3.0	6.5	4.5	5.5	17.0	16.0	16.5	18.5	16.0	17.5
2	3.0	1.0	2.0	8.0	6.0	7.0	16.5	12.5	14.0	17.5	15.0	16.5
3	3.0	1.5	2.0	7.5	6.5	7.0	12.5	11.5	12.0	17.0	15.5	16.5
4	4.5	2.5	3.5	8.5	6.5	7.0	11.5	9.5	10.5	18.0	16.5	17.0
5	3.5	1.0	2.0	10.0	8.5	9.0	11.5	9.0	10.0	18.5	15.5	17.0
6	1.5	1.0	1.0	10.0	9.0	9.5	---	---	---	18.0	15.5	17.0
7	1.5	1.0	1.0	9.0	7.5	8.0	---	---	---	20.0	16.0	18.0
8	2.5	1.0	1.5	9.0	6.5	8.0	---	---	---	22.5	18.5	20.5
9	2.5	1.0	2.0	9.5	7.0	8.5	---	---	---	24.5	21.0	22.5
10	1.5	1.0	1.0	10.0	8.5	9.5	10.5	10.5	10.5	25.0	22.5	24.0
11	1.5	1.0	1.0	10.0	6.5	8.5	13.0	9.0	11.0	25.0	23.0	24.0
12	1.0	1.0	1.0	6.5	4.0	5.5	13.0	11.5	12.5	24.5	21.5	22.5
13	1.0	1.0	1.0	8.0	4.5	6.5	12.5	10.5	11.5	21.0	20.0	20.5
14	1.0	1.0	1.0	10.0	8.0	9.0	10.5	9.0	10.0	20.0	18.5	19.5
15	1.5	1.0	1.0	9.0	6.0	7.0	11.5	9.5	10.5	21.0	17.5	19.0
16	1.0	1.0	1.0	6.5	3.5	5.0	11.5	10.5	10.5	22.0	19.5	20.5
17	1.5	1.0	1.0	9.0	5.0	7.0	11.5	10.0	10.5	21.0	18.5	20.0
18	1.0	1.0	1.0	11.0	8.0	9.5	13.5	9.5	11.5	20.0	17.5	18.5
19	1.0	1.0	1.0	10.5	8.0	9.5	14.5	11.0	13.0	17.5	17.0	17.5
20	1.0	1.0	1.0	11.0	8.0	9.5	15.5	11.5	13.5	18.5	17.0	17.5
21	1.0	1.0	1.0	12.0	9.0	10.5	16.5	12.5	14.5	18.5	17.5	18.0
22	1.5	1.0	1.0	13.0	9.5	11.5	16.0	14.0	15.0	20.5	18.0	19.0
23	1.5	1.0	1.0	13.5	10.5	12.5	18.0	15.0	16.5	20.5	19.0	19.5
24	3.0	1.0	2.0	13.5	13.0	13.0	17.5	15.5	16.0	19.5	18.5	19.0
25	3.0	1.0	2.0	13.0	12.0	12.5	18.5	15.0	16.5	20.5	19.0	19.5
26	3.5	1.5	2.5	11.5	8.5	9.5	19.0	18.0	18.5	20.0	17.0	18.5
27	5.5	3.5	4.5	8.5	6.5	7.5	18.0	17.0	17.5	17.0	15.5	16.5
28	6.5	4.5	5.5	9.5	6.0	8.0	17.0	15.0	16.0	17.0	16.0	16.5
29	---	---	---	13.0	8.5	10.5	18.0	15.0	16.5	18.5	15.5	17.0
30	---	---	---	15.5	12.5	14.0	18.5	15.0	17.0	20.5	17.5	19.0
31	---	---	---	17.5	15.0	16.0	---	---	---	20.0	18.5	19.5
MONTH	6.5	1.0	1.5	17.5	3.5	9.0	19.0	9.0	13.5	25.0	15.0	19.0

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.5	19.0	20.0	23.0	21.5	22.5	27.5	25.5	26.5	25.5	24.0	25.0
2	20.5	19.5	20.0	22.5	21.0	21.5	27.5	26.5	27.0	26.5	24.5	25.5
3	19.0	18.0	18.5	23.5	20.0	21.5	26.5	25.0	26.0	26.5	25.0	25.5
4	18.5	17.5	18.0	23.0	19.0	21.0	27.5	25.0	26.0	26.5	25.0	26.0
5	20.5	17.5	19.0	20.0	17.5	18.5	28.0	25.5	27.0	26.0	25.0	25.5
6	20.5	19.5	20.0	20.5	18.0	19.5	28.0	26.0	27.0	---	---	---
7	21.5	18.5	20.0	21.5	18.5	20.0	27.0	25.0	26.0	---	---	---
8	23.0	20.5	21.5	22.5	19.5	21.0	27.0	24.5	26.0	---	---	---
9	22.5	21.0	21.5	23.5	21.0	22.0	27.5	25.0	26.5	---	---	---
10	23.5	21.0	22.5	22.5	21.5	22.0	28.0	25.5	26.5	---	---	---
11	23.0	19.0	20.5	23.5	21.0	22.0	26.5	24.0	25.5	---	---	---
12	20.0	17.0	18.5	25.0	22.5	24.0	24.0	18.5	21.0	---	---	---
13	20.0	17.0	18.5	26.5	24.0	25.0	21.0	17.5	19.0	21.0	20.0	21.0
14	20.5	17.0	19.0	27.0	25.5	26.0	22.5	20.0	21.0	22.5	21.0	22.0
15	22.0	18.0	20.0	27.0	25.0	26.0	22.0	20.5	21.5	22.5	20.5	21.5
16	22.5	19.5	21.0	28.0	26.0	27.0	21.5	19.0	20.5	20.5	18.5	19.5
17	22.0	20.5	21.5	27.0	25.5	26.5	21.0	19.0	20.0	20.0	18.0	19.0
18	23.5	21.0	22.0	27.0	25.0	26.0	20.0	19.0	19.5	20.5	18.0	19.0
19	22.5	20.5	22.0	26.5	24.0	25.0	21.5	19.0	20.0	20.5	19.5	20.0
20	23.0	20.0	21.5	26.0	25.0	25.5	24.0	21.0	22.5	19.5	17.0	18.0
21	22.0	20.0	21.5	25.0	22.5	23.5	23.5	22.5	23.0	18.0	17.0	17.0
22	21.5	19.5	20.5	23.5	21.5	22.5	24.0	21.0	22.5	19.0	18.0	19.0
23	22.0	19.0	20.5	24.5	22.5	23.5	23.5	22.0	23.0	19.0	17.5	18.5
24	21.5	19.0	20.5	24.5	22.5	24.0	24.5	22.5	23.5	18.0	16.0	17.0
25	20.5	17.0	19.0	26.5	23.5	25.0	26.0	24.0	25.0	18.0	16.5	17.5
26	21.0	18.0	19.5	26.5	25.5	26.0	25.5	24.5	25.0	18.5	17.0	17.5
27	22.0	19.0	20.5	26.0	24.5	25.5	26.0	24.5	25.0	18.5	17.0	18.0
28	22.0	20.0	21.0	26.0	24.0	25.0	26.0	24.0	25.0	19.0	17.5	18.0
29	22.0	20.0	21.0	25.5	24.0	24.5	26.5	25.0	25.5	20.5	19.0	19.5
30	23.5	21.0	22.5	25.0	23.0	24.0	26.0	23.5	24.5	21.0	19.0	20.0
31	---	---	---	26.0	24.0	25.0	26.5	24.0	25.0	---	---	---
MONTH	23.5	17.0	20.5	28.0	17.5	23.5	28.0	17.5	24.0	26.5	16.0	20.5

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	11.3	9.5	10.3	10.9	9.9	10.3	12.1	11.6	11.9	12.5	11.5	12.1
2	10.9	8.9	9.5	11.1	10.1	10.4	12.6	11.9	12.2	11.5	10.6	11.0
3	11.6	9.3	10.7	11.3	10.2	10.6	12.2	11.6	12.0	13.1	10.8	12.1
4	10.2	9.3	9.6	10.5	9.9	10.3	11.6	10.3	10.9	13.4	13.1	13.2
5	10.3	9.1	9.5	10.9	9.8	10.2	10.9	10.3	10.6	13.2	12.8	13.1
6	9.8	8.6	9.0	10.9	9.7	10.1	11.4	10.9	11.3	12.8	12.5	12.7
7	9.1	8.5	8.8	10.7	9.6	10.0	12.0	11.4	11.6	12.5	12.2	12.4
8	9.8	8.9	9.4	10.0	9.4	9.7	11.5	10.5	11.1	12.8	11.5	11.9
9	10.5	9.6	10.0	11.0	9.5	10.2	10.4	10.0	10.2	12.1	11.4	11.7
10	10.7	9.8	10.2	11.4	10.1	10.6	---	---	---	---	---	---
11	10.4	9.4	9.8	11.5	10.4	10.8	---	---	---	---	---	---
12	9.8	8.9	9.3	11.2	10.2	10.5	12.9	12.6	12.8	12.8	12.3	12.6
13	9.4	8.4	8.9	11.0	10.0	10.3	12.6	12.2	12.4	12.4	11.5	12.0
14	8.6	8.3	8.4	11.3	10.0	10.5	12.4	12.1	12.3	---	---	---
15	9.3	8.4	8.9	10.8	9.6	10.0	12.6	12.3	12.5	13.5	13.3	13.4
16	10.4	9.1	9.7	10.4	9.4	9.8	12.5	12.2	12.4	13.5	13.0	13.3
17	10.0	9.6	9.8	10.4	9.7	10.0	12.2	11.9	12.0	13.1	12.9	13.0
18	10.4	9.6	10.0	9.7	9.2	9.4	12.5	12.0	12.2	13.5	12.9	13.2
19	10.0	9.4	9.7	10.2	9.2	9.8	12.7	12.3	12.5	13.7	13.5	13.6
20	9.8	9.2	9.5	11.5	10.1	10.8	12.7	12.4	12.6	13.6	13.0	13.3
21	10.1	9.4	9.7	11.7	11.2	11.4	12.4	11.9	12.0	---	---	---
22	10.2	9.5	9.7	11.8	11.2	11.5	12.4	11.9	12.2	12.9	12.8	12.9
23	10.2	9.2	9.6	11.7	11.0	11.4	12.7	12.3	12.5	13.0	12.8	12.9
24	10.1	9.3	9.6	11.4	10.8	11.0	12.7	12.3	12.6	12.7	11.3	12.2
25	10.8	9.6	10.1	11.5	10.7	11.0	12.2	11.5	12.0	12.2	11.9	12.0
26	10.2	9.6	10.0	12.3	11.0	11.7	12.6	12.1	12.3	12.2	11.9	12.1
27	10.0	9.3	9.6	12.5	11.8	12.2	13.1	12.4	12.7	12.0	11.7	11.9
28	10.3	9.3	9.8	13.1	12.4	12.7	13.6	13.1	13.4	11.9	11.7	11.8
29	10.7	9.8	10.2	13.0	12.4	12.7	13.7	13.5	13.6	12.3	11.7	12.0
30	11.2	10.1	10.6	12.4	11.6	11.9	13.6	13.3	13.5	12.5	12.3	12.4
31	11.1	10.1	10.5	---	---	---	13.3	12.5	12.9	12.7	12.5	12.6
MONTH	11.6	8.3	9.7	13.1	9.2	10.7	13.7	10.0	12.2	13.7	10.6	12.5

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.1	12.7	12.9	12.8	12.4	12.6	13.2	9.2	11.1	12.0	8.6	10.2
2	---	---	---	12.4	12.1	12.3	10.9	9.7	10.4	12.4	8.8	10.6
3	---	---	---	12.5	12.0	12.3	12.0	10.0	10.9	11.8	8.8	10.3
4	---	---	---	12.4	11.9	12.3	11.9	10.4	11.2	11.3	8.3	9.7
5	13.5	13.4	13.4	11.9	11.5	11.7	11.9	10.1	11.1	11.8	8.4	10.0
6	13.7	13.4	13.5	11.4	11.3	11.3	---	---	---	11.5	8.4	10.0
7	13.4	13.2	13.3	12.0	11.4	11.8	---	---	---	11.3	8.4	9.8
8	14.6	13.1	13.3	12.0	11.5	11.7	---	---	---	10.9	7.7	9.2
9	13.4	13.1	13.3	12.0	11.5	11.7	---	---	---	10.1	7.2	8.6
10	13.7	13.4	13.6	11.6	11.2	11.4	12.2	11.4	11.8	9.1	6.7	7.8
11	13.8	13.6	13.7	12.0	11.1	11.5	13.0	11.0	11.8	8.6	6.7	7.7
12	13.8	13.6	13.7	12.9	12.0	12.6	12.2	10.3	11.2	7.7	6.6	7.2
13	13.6	13.4	13.5	12.8	12.0	12.5	12.1	10.1	11.1	8.1	7.3	7.7
14	13.6	13.3	13.5	11.9	11.3	11.5	11.5	10.8	11.2	8.4	7.6	8.0
15	13.3	13.0	13.1	12.7	11.3	12.1	12.1	10.8	11.3	8.7	7.8	8.3
16	13.1	12.9	13.0	13.3	12.6	13.0	12.3	10.4	11.3	8.4	7.4	7.9
17	13.5	13.1	13.3	13.0	12.0	12.6	13.0	10.6	11.8	8.8	7.7	8.2
18	13.5	13.4	13.5	12.3	11.5	11.9	13.5	10.9	12.0	8.7	7.6	8.2
19	13.4	13.0	13.2	12.6	11.3	11.9	13.6	10.3	11.8	8.6	8.2	8.4
20	---	---	---	12.6	11.3	11.9	13.8	10.1	11.8	8.8	8.4	8.5
21	---	---	---	12.7	10.9	11.7	13.8	9.8	11.6	8.7	8.2	8.4
22	14.0	13.9	14.0	12.9	10.6	11.6	13.8	9.4	11.4	8.7	8.0	8.3
23	14.1	13.8	14.0	13.3	10.4	11.7	13.7	9.5	11.5	8.3	7.6	7.9
24	13.8	13.3	13.6	11.1	9.8	10.3	12.7	9.1	10.9	8.0	6.2	7.5
25	14.1	13.3	13.7	11.7	9.8	10.7	13.2	9.4	11.1	8.1	7.8	7.9
26	14.0	13.5	13.9	13.2	10.6	11.9	11.5	8.3	9.8	8.5	7.8	8.2
27	13.5	12.6	13.1	13.6	11.6	12.6	9.6	8.2	8.9	9.1	8.5	8.9
28	13.0	12.3	12.7	13.9	11.2	12.5	10.9	8.9	9.8	9.0	8.6	8.8
29	---	---	---	14.2	10.7	12.3	12.0	9.1	10.4	9.3	8.6	8.8
30	---	---	---	14.3	10.0	11.9	12.1	8.9	10.4	8.8	8.3	8.6
31	---	---	---	13.6	9.5	11.4	---	---	---	8.7	8.2	8.5
MONTH	14.6	12.3	13.4	14.3	9.5	11.9	13.8	8.2	11.1	12.4	6.2	8.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.5	8.2	8.3	8.4	7.1	7.7	8.1	6.7	7.3	8.0	7.0	7.5
2	8.5	8.0	8.2	8.6	7.0	7.8	7.8	6.6	7.1	8.0	7.1	7.4
3	8.5	8.0	8.3	9.2	7.7	8.4	7.0	6.6	6.7	8.1	6.9	7.4
4	8.7	8.4	8.6	8.4	7.4	8.0	6.8	6.5	6.6	8.6	6.9	7.6
5	8.5	8.1	8.4	9.4	8.1	8.7	7.5	6.4	6.9	8.1	7.0	7.5
6	8.4	8.1	8.3	9.5	8.3	8.9	7.8	6.4	7.0	---	---	---
7	8.5	8.1	8.3	9.5	8.1	8.8	9.3	6.5	7.7	---	---	---
8	8.4	7.9	8.1	9.7	8.0	8.8	9.7	7.6	8.5	---	---	---
9	8.4	7.8	8.1	9.6	7.7	8.6	10.2	7.5	8.7	---	---	---
10	8.5	7.8	8.1	9.2	7.6	8.3	10.4	7.5	8.7	---	---	---
11	8.2	7.7	7.9	9.5	7.5	8.4	9.2	7.2	8.2	---	---	---
12	9.0	8.2	8.7	9.3	7.2	8.2	8.8	7.7	8.1	---	---	---
13	9.3	8.5	8.9	9.3	6.9	8.0	9.1	8.5	8.9	9.4	8.5	9.1
14	9.4	8.5	8.9	8.6	6.6	7.4	9.0	8.2	8.5	8.5	7.7	8.1
15	9.4	8.3	8.8	8.5	6.4	7.3	9.1	7.9	8.5	8.7	7.8	8.3
16	9.6	8.0	8.7	8.2	6.1	7.1	9.5	8.4	8.9	10.0	8.5	9.2
17	9.4	7.8	8.5	7.9	5.8	6.7	10.0	8.6	9.2	10.2	8.8	9.5
18	9.7	7.7	8.6	7.9	6.3	7.0	9.4	8.6	9.0	10.5	8.8	9.6
19	10.1	7.6	8.8	8.4	6.8	7.5	9.7	8.3	8.9	10.3	8.5	9.4
20	10.4	7.9	9.0	8.2	6.6	7.3	9.9	8.0	8.8	10.9	8.8	9.8
21	10.5	7.8	9.0	7.3	5.8	6.6	9.3	7.7	8.3	9.9	8.8	9.4
22	10.0	7.7	8.7	7.1	5.5	6.8	10.0	7.9	8.8	8.5	6.3	7.0
23	8.4	6.8	7.4	7.6	7.1	7.3	9.7	7.8	8.6	8.4	7.4	7.9
24	7.6	6.7	7.2	7.8	7.0	7.3	8.5	7.6	8.0	7.9	7.3	7.7
25	9.4	7.5	8.4	7.9	7.0	7.4	9.0	7.2	7.9	9.2	7.6	8.3
26	9.4	8.3	8.8	7.8	6.8	7.2	8.8	6.9	7.7	8.9	8.4	8.6
27	9.4	8.1	8.7	7.9	6.8	7.3	9.1	7.1	7.8	9.6	8.0	9.1
28	9.3	7.9	8.6	8.2	6.9	7.5	7.5	7.0	7.2	9.5	8.8	9.1
29	9.4	7.9	8.6	8.2	6.8	7.4	8.1	6.7	7.3	9.2	8.5	8.8
30	9.6	7.7	8.5	7.9	7.1	7.5	7.4	6.7	7.1	8.6	7.5	8.0
31	---	---	---	7.6	6.6	7.1	7.6	7.0	7.2	---	---	---
MONTH	10.5	6.7	8.5	9.7	5.5	7.7	10.4	6.4	8.0	10.9	6.3	8.5

CHRISTINA RIVER BASIN

01481500 BRANDYWINE CREEK AT WILMINGTON, DE

LOCATION.--Lat 39°46'09", long 75°34'25", New Castle County, Hydrologic Unit 02040205, on right bank in Rockford Park, 0.2 mi (0.3 km) downstream from Henry Clay Bridge, in Wilmington, and 4.2 mi (6.8 km) upstream from mouth.

DRAINAGE AREA.--314 mi² (813 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to current year. Prior to December 1946 monthly discharge only, published in WSP 1302.

REVISED RECORDS.--WSP 1432: 1948, 1950.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 68.23 ft (20.797 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Some diurnal fluctuation at low flow caused by mills above station. Flow regulated since November 1973 by Marsh Creek Reservoir about 27 mi (43 km) upstream. No diversion just above station by plant of E. I. du Pont de Nemours & Co. since June 13, 1960.

AVERAGE DISCHARGE.--33 years, 484 ft³/s (13.71 m³/s), 20.93 in/yr (532 mm/yr), adjusted for storage since November 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,000 ft³/s (821 m³/s) June 23, 1972, gage height, 15.49 ft (4.721 m), from rating curve extended above 18,000 ft³/s (510 m³/s); minimum, about 30 ft³/s (0.85 m³/s) Dec. 26, 1948, during period of ice effect; minimum daily, 56 ft³/s (1.59 m³/s) Aug. 23, 24, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft³/s (110 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 9	1930	5610	159	7.40	2.256	May 24	0745	4770	135	6.83	2.082
Jan. 8	1600	5200	147	7.23	2.204	June 3	1645	4660	132	6.75	2.057
Jan. 21	1815	10700	303	9.90	3.018	July 22	0215	5520	156	7.34	2.237
Jan. 25	0500	*22400	634	13.22	4.029	Sept. 6	2145	10500	297	9.79	2.984
Feb. 24	1300	5110	145	7.07	2.155	Sept. 22	1615	13100	371	10.70	3.261
Feb. 25	1015	11800	334	10.29	3.136	Sept. 30	0445	7440	211	8.44	2.573
Feb. 26	1400	15300	433	11.37	3.466						

Minimum daily discharge, 172 ft³/s (4.87 m³/s) Oct. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	234	182	435	630	975	1750	553	532	699	657	317	297
2	226	188	289	1780	902	1520	597	501	867	472	348	288
3	220	187	247	1490	738	1400	597	501	2640	426	601	278
4	222	181	537	723	718	1210	633	521	1990	400	484	266
5	238	183	1000	650	679	1270	718	521	1280	461	323	299
6	346	190	526	623	532	1920	598	491	1010	389	293	6090
7	393	185	314	822	670	1430	521	482	878	355	274	2340
8	238	183	297	4190	620	1110	501	463	808	342	264	746
9	224	181	3080	1500	586	1050	662	454	754	330	260	602
10	218	182	2380	869	450	1010	1210	436	720	325	246	495
11	253	178	793	773	470	1350	698	410	998	321	285	431
12	247	182	583	704	410	1040	633	482	802	311	686	396
13	393	180	517	731	448	950	645	445	682	299	1040	404
14	463	185	461	887	440	925	1010	633	622	298	399	439
15	488	183	405	835	553	822	921	542	589	324	322	733
16	431	199	384	662	553	758	698	445	567	318	292	309
17	630	207	370	621	454	748	657	370	544	472	278	341
18	309	406	351	590	410	738	609	386	555	367	269	321
19	202	302	331	458	394	718	564	698	517	367	339	320
20	198	208	324	616	532	708	532	670	490	308	293	297
21	185	193	510	7640	575	689	521	491	471	1980	272	336
22	185	191	461	4960	779	679	521	454	459	1080	274	7960
23	179	191	330	1160	867	657	521	436	955	500	255	2080
24	176	211	413	3260	3760	835	491	3380	620	652	310	1080
25	172	207	2020	12100	10000	927	521	1810	504	367	289	798
26	176	187	779	2050	11900	708	632	1200	448	360	322	712
27	189	202	540	1600	3760	657	896	925	432	414	271	661
28	187	243	457	1420	1900	621	811	833	405	351	557	601
29	173	259	398	1230	---	621	670	760	434	322	334	624
30	173	630	380	1100	---	586	575	758	442	486	942	2330
31	173	---	426	1030	---	553	---	708	---	486	381	---
TOTAL	8141	6586	20258	57904	45067	29960	19716	21666	23118	15140	11740	32864
MEAN	263	220	653	1868	1610	966	657	699	771	488	379	1095
MAX	630	630	3000	12100	11900	1920	1210	3380	2640	1980	1040	7960
MIN	172	178	247	458	394	553	491	370	405	298	246	266
(≠)	-43.6	+11.6	+12.2	+1.3	+35.6	-10.4	+0.8	-3.4	+2.0	-0.2	-1.5	-0.2
MEAN♦	219	232	665	1869	1646	956	658	696	773	488	378	1095
CFSM♦	.70	.74	2.12	5.95	5.24	3.04	2.10	2.22	2.46	1.55	1.20	3.49
IN♦	.81	.83	2.44	6.86	5.46	3.51	2.34	2.56	2.75	1.79	1.38	3.89

CAL YR 1978	TOTAL 248916	MEAN 682	MAX 11200	MIN 172	MEAN♦ 680	CFSM♦ 2.17	IN♦ 29.38
WTR YR 1979	TOTAL 292160	MEAN 800	MAX 12100	MIN 172	MEAN♦ 800	CFSM♦ 2.55	IN♦ 34.60

≠ Change in contents in Marsh Creek Reservoir, equivalent in cubic feet per second, furnished by Pennsylvania Department of Environmental Resources.

♦ Adjusted for change in reservoir contents.

01481500 BRANDYWINE CREEK AT WILMINGTON, DE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: November 1956 to September 1961, February 1971 to September 1973, October 1974 to current year.
SUSPENDED-SEDIMENT DISCHARGE: December 1946 to September 1961, July 1962 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum daily, 30.5°C July 18, 19, 1977; minimum daily, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,700 mg/L Feb. 14, 1966; minimum daily mean, 1 mg/L on many days.
SEDIMENT LOADS: Maximum daily, 35,700 tons (32,400 tonnes), Feb. 14, 1971; minimum daily, less than 0.50 ton (0.45 tonne) on many days.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 650 mg/L Jan. 21, Sept. 22; minimum daily mean, 2 mg/L Apr. 7, 8.
SEDIMENT LOADS: Maximum daily, 14,000 tons (12,700 tonnes) Sept. 22; minimum daily, 1.5 tons (1.4 tonnes) Nov. 9, 10.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 02...	1300	234	240	7.7	21.0	18.0	10	--	89	36	22	8.3
JAN 02...	1115	1770	157	6.3	12.5	8.5	20	11.8	62	30	15	5.9
APR 02...	1030	560	193	6.2	9.0	13.5	10	12.5	70	27	17	6.7
JUN 02...	1030	470	200	7.6	26.5	21.0	5	8.8	73	31	18	6.7
SEP 27...	1145	645	184	8.3	21.0	16.5	5	8.7	69	30	17	6.4

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT 02...	11	21	.5	2.8	65	53	2.1	24	18	.1	10	143
JAN 02...	7.3	20	.4	2.6	39	32	31	19	12	.1	11	109
APR 02...	9.7	23	.5	2.0	52	43	53	28	14	.1	7.5	106
JUN 02...	8.8	20	.5	2.6	51	42	2.1	20	14	.1	9.8	137
SEP 27...	8.7	21	.5	2.8	48	39	.4	21	12	.1	11	118

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 02...	128	.19	90.3	2.4	.22	.67	290	270	20	40	10	30
JAN 02...	92	.15	521	2.1	.16	.49	2500	2400	80	100	0	100
APR 02...	103	.14	160	2.0	.08	.24	--	--	40	--	--	20
JUN 02...	105	.19	174	2.0	.14	.43	610	560	50	70	50	20
SEP 27...	103	.16	206	2.2	.11	.34	710	640	70	40	20	20

01481500 BRANDYWINE CREEK AT WILMINGTON, DE--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	12.0	5.0	---	---	6.0	---	17.0	19.0	---	26.0	---
2	17.5	11.0	5.0	3.5	1.0	7.5	13.0	16.0	---	21.5	25.0	25.5
3	16.5	11.0	---	---	1.0	6.5	11.0	16.5	17.0	22.0	25.0	---
4	15.5	10.0	9.0	---	---	7.0	9.0	17.0	17.5	20.0	25.5	2[illegible]0
5	15.5	---	9.0	---	---	---	10.5	17.0	---	19.0	26.0	25.0
6	17.0	11.0	7.5	2.0	---	---	9.5	---	20.5	19.5	27.0	24.5
7	14.5	11.0	7.0	---	---	8.0	8.5	18.5	21.0	20.5	26.0	24.0
8	14.0	11.5	9.0	3.0	---	9.0	---	20.5	22.0	21.0	26.5	22.0
9	---	11.0	10.0	.5	---	9.0	8.0	---	22.0	21.0	26.5	---
10	---	---	4.5	.5	---	10.0	9.5	23.5	22.5	22.0	27.0	20.0
11	14.0	9.5	3.0	---	---	---	12.0	23.5	20.5	22.0	25.0	20.0
12	15.5	---	---	1.0	---	5.5	11.5	---	18.5	24.0	---	20.0
13	16.5	9.5	4.0	2.0	---	7.0	10.0	20.0	18.5	25.0	20.5	20.0
14	---	10.0	3.5	---	---	9.5	8.0	18.0	20.0	25.0	21.5	---
15	12.5	11.5	3.0	.5	---	5.5	---	18.5	21.0	---	20.5	---
16	11.0	10.5	4.0	2.0	---	5.0	10.0	20.0	20.5	26.0	20.5	---
17	12.0	10.5	---	1.5	---	7.0	10.0	19.0	22.0	26.5	20.0	---
18	12.0	12.5	4.0	.5	---	9.0	12.0	17.0	22.5	25.0	---	---
19	12.0	10.0	2.0	---	---	10.0	13.0	---	---	25.0	---	---
20	12.5	9.5	1.5	---	---	10.0	14.0	17.5	22.0	25.0	22.0	---
21	---	7.0	4.0	1.5	---	10.5	13.5	17.5	21.0	24.0	22.0	---
22	12.0	6.5	3.5	2.5	---	12.0	15.0	18.0	21.0	23.0	---	---
23	15.0	---	3.0	3.5	---	13.0	17.0	19.0	21.0	23.5	22.0	---
24	13.0	7.5	2.0	5.5	---	12.0	15.0	18.0	19.5	24.0	23.0	---
25	12.0	7.5	3.0	2.0	1.0	11.0	17.0	19.0	19.5	24.0	24.5	---
26	12.5	5.0	---	3.5	3.0	---	17.0	18.0	20.0	25.5	---	---
27	12.5	3.5	2.0	---	3.0	8.0	16.5	---	21.0	25.5	25.0	---
28	12.5	4.0	1.0	3.5	5.5	8.0	15.0	15.5	21.0	25.0	25.0	---
29	10.5	3.5	.5	4.0	---	12.0	16.0	17.5	21.5	---	25.0	---
30	10.5	6.0	.5	4.0	---	15.0	16.5	19.0	22.0	24.5	24.5	---
31	11.5	---	3.0	2.5	---	16.0	---	19.0	---	---	25.0	---

01481500 BRANDYWINE CREEK AT WILMINGTON, DE--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6	3.8	6	2.9	19	22	20	34	18	47	36	170
2	7	4.3	7	3.6	15	12	200	961	17	41	24	98
3	6	3.6	6	3.0	13	8.7	95	433	12	24	19	72
4	7	4.2	7	3.4	21	30	20	39	10	19	12	39
5	8	5.1	6	3.0	55	148	14	25	9	16	14	48
6	17	16	6	3.1	30	43	9	15	6	8.6	45	233
7	37	39	7	3.5	17	14	30	67	9	16	27	104
8	23	15	5	2.5	15	12	368	4430	8	13	17	51
9	15	9.1	3	1.5	268	3350	90	384	6	9.5	10	20
10	8	4.7	3	1.5	100	643	19	45	4	4.9	9	25
11	10	6.8	4	1.9	23	49	14	29	4	5.1	33	120
12	9	6.0	4	2.0	11	17	12	23	3	3.3	15	42
13	13	14	4	1.9	8	11	13	26	4	4.8	8	21
14	17	21	5	2.5	8	10	14	34	4	4.8	7	17
15	16	21	6	3.0	10	11	13	29	6	9.0	8	18
16	15	17	5	2.7	13	13	12	21	6	9.0	7	14
17	23	39	3	1.7	12	12	8	13	5	6.1	4	8.1
18	15	13	14	15	10	9.5	9	14	5	5.5	4	8.0
19	9	4.9	11	9.0	9	8.0	14	17	4	4.3	3	5.8
20	7	3.7	6	3.4	8	7.0	25	42	7	10	4	7.6
21	7	3.5	7	3.6	12	17	650	13400	8	12	3	5.6
22	7	3.5	6	3.1	11	14	260	3480	12	25	5	9.2
23	8	3.9	7	3.6	8	7.1	40	125	10	23	3	5.3
24	9	4.3	8	4.6	15	17	350	3080	110	1120	11	25
25	8	3.7	7	3.9	275	1500	480	13100	330	9060	11	28
26	9	4.3	6	3.0	85	137	74	410	340	11400	6	11
27	8	4.1	11	6.0	16	23	48	207	155	1570	5	8.9
28	6	3.0	10	6.6	19	23	31	119	50	256	5	8.4
29	6	2.8	11	7.7	13	14	21	70	---	---	6	10
30	7	3.3	20	48	8	8.2	18	53	---	---	5	7.9
31	6	2.8	---	---	9	10	17	47	---	---	6	9.0
TOTAL	---	298.4	---	161.2	---	6200.5	---	40752	---	23726.9	---	1257.8

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5	7.5	5	7.2	16	30	11	20	17	15	40	32
2	7	11	4	5.4	105	246	10	13	40	38	17	13
3	5	8.1	5	6.8	515	4960	9	10	100	162	12	9.0
4	6	10	6	8.4	130	698	8	8.6	55	72	15	11
5	9	17	6	8.4	75	243	14	17	33	29	15	12
6	4	6.5	6	8.0	36	98	12	13	16	13	250	5200
7	2	2.8	5	6.5	24	57	10	9.6	14	10	85	537
8	2	2.7	5	6.3	18	39	12	11	13	9.3	20	40
9	6	11	5	6.1	16	33	11	9.8	12	8.4	12	20
10	26	85	6	7.1	14	28	9	7.9	11	7.3	7	9.4
11	6	11	7	7.7	47	141	7	6.1	10	7.7	7	8.1
12	4	6.8	7	7.6	28	61	6	5.0	60	90	5	5.3
13	4	7.0	8	9.6	15	28	6	4.8	68	168	6	6.5
14	14	30	14	24	13	22	5	4.0	20	22	9	11
15	13	32	12	18	11	17	7	6.1	15	13	20	40
16	7	13	7	8.4	9	14	8	6.9	14	11	9	9.5
17	8	14	4	4.0	7	10	36	46	14	11	7	6.4
18	7	12	8	8.3	6	9.0	22	22	13	9.4	6	5.2
19	9	14	15	28	7	9.8	16	16	13	12	5	4.3
20	6	8.6	16	29	8	11	17	14	11	8.7	5	4.8
21	5	7.0	11	15	9	11	225	1200	12	8.0	10	9.0
22	7	9.0	9	11	7	8.7	100	588	14	10	650	14000
23	5	7.0	8	9.4	60	195	40	54	13	9.0	100	1010
24	6	8.0	590	6200	40	68	17	21	24	20	25	67
25	9	13	105	513	23	31	15	15	13	10	13	28
26	13	22	97	314	14	17	11	11	11	9.6	9	17
27	16	39	60	150	8	9.3	12	13	10	7.3	7	12
28	10	22	25	56	8	6.6	12	11	20	42	6	9.7
29	5	9.0	19	39	9	11	13	11	20	18	7	12
30	5	7.8	18	37	12	14	14	18	125	450	325	2040
31	---	---	17	32	---	---	12	16	85	87	---	---
TOTAL	---	462.6	---	7671.2	---	6686.4	---	2128.8	---	1396.5	---	23188.4

TOTAL LOAD FOR YEAR: 113922.7 TONS.

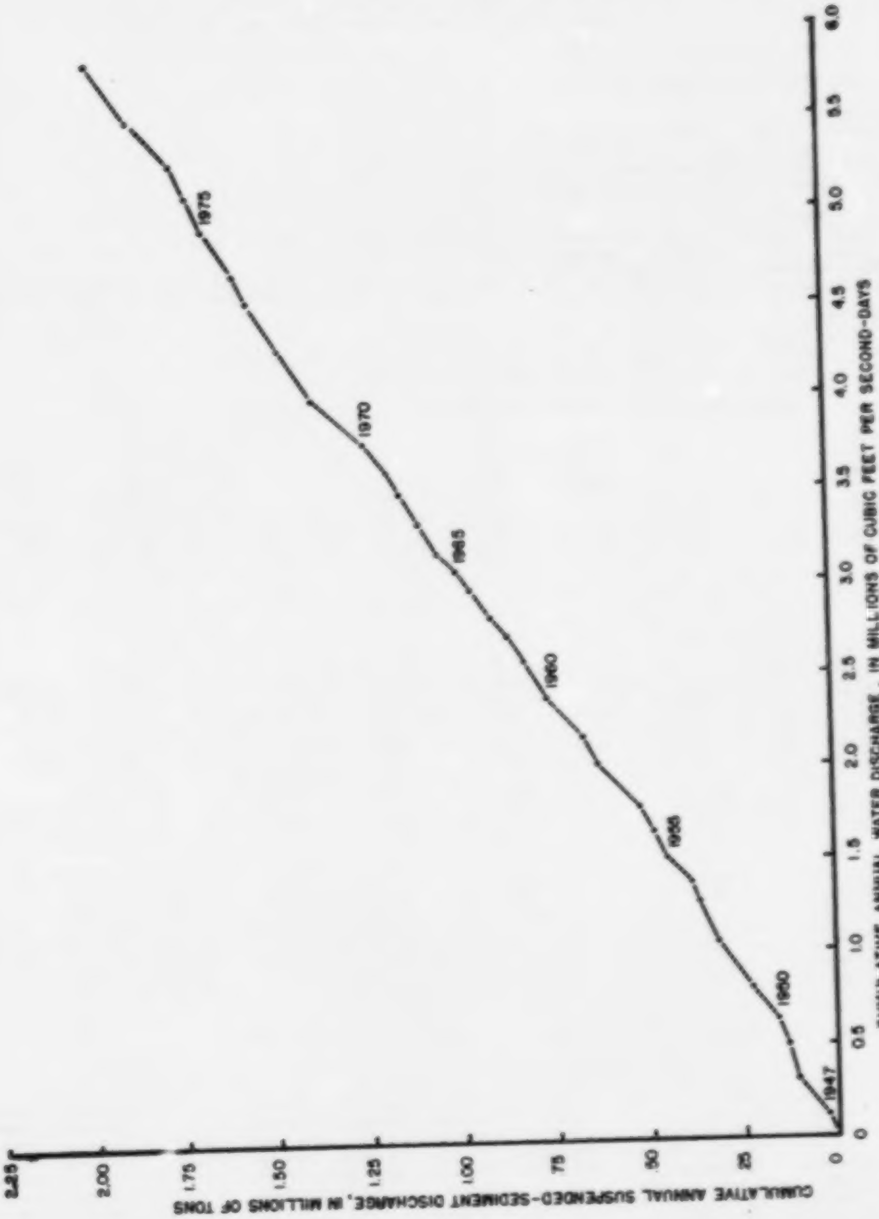

FIGURE 12--Double mass accumulation of annual suspended-sediment discharge versus annual water discharge, Brandywine Creek at Wilmington, Delaware

Table 3.--Suspended sediment concentration-duration table, Brandywine Creek at Wilmington, DE

Period	Mean daily concentration, in milligrams per liter that was equaled or exceeded for indicated percentage of time													
	1	2	5	10	20	30	40	50	60	70	80	90	95	99
1979	500	340	145	59	23	16	14	11	9	8	6	5	4	3
1966-79	500	330	140	62	29	19	15	12	10	8	7	5	4	2

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE

LOCATION.--Lat 39°41'21", long 75°31'19", New Castle County, Hydrologic Unit 02040205, at tidal gaging station located on channel side of west tower of south bridge between Pigeon Point, DE, and Deepwater Point, NJ.

DRAINAGE AREA.--11,030 mi² (28,600 km²).

PERIOD OF RECORD.--July 1955 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: January 1968 to current year.
WATER TEMPERATURES: October 1956 to current year.
DISSOLVED OXYGEN: November 1962 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 12,700 micromhos Nov. 13, 1966; minimum, 100 micromhos on many days.
pH: Maximum, 9.3 Nov. 10-11, 13, 1970; minimum, 4.2 Nov. 6, 1969.
WATER TEMPERATURES: Maximum, 31.0°C Aug. 9, 1968; minimum, freezing point on many days during winter months.
DISSOLVED OXYGEN: Maximum, 13.5 mg/L Dec. 29, 1969; minimum, 0.0 mg/L on many days during summer months.

EXTREMES FOR CURRENT YEAR.--
pH: Maximum, 7.3 Nov. 23, 27-30, Dec. 1, 4; minimum, 6.0 June 5-10, 21.
WATER TEMPERATURES: Maximum, 29.0°C Aug. 5-6; minimum, 0.5°C Jan. 19, 20, Feb. 7-13, 16-19.
DISSOLVED OXYGEN: Maximum, 11.6 mg/L Mar. 2; minimum, 1.2 mg/L Sept. 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)
APR 28...	1130	204	6.7	13.5	21	66	43	16	6.4	19	2.4	28

DATE	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)
APR 28...	0	23	8.9	35	36	163	1.4	.08	1.5	8.8	.53	100

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN,TOT IN BOTTOM MATERIAL (MG/KG AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)
APR 28...	.24	.77	8500	2.3	8510	.160	.02	820	2	<10	50

DATE	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)
APR 28...	<10	20	36000	20	1200	.00	0	90	7.5	27	.7

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
APR 28...	31	.0	27	15	35	3.0	1.2	.0	.0	.0	0

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	6280	2080	4030	7230	2230	4250	8570	2530	4960	2210	330	972
2	6810	2040	4940	7460	2340	4410	8160	2510	4930	1790	310	935
3	7280	2260	4310	7260	2220	4350	6270	2520	4860	410	290	321
4	8090	2710	5080	7650	2630	4730	7970	2490	5110	310	270	297
5	8190	2830	5090	7610	2860	4930	6830	1960	4280	300	250	261
6	8460	2810	5330	7460	3040	5050	6170	1960	3920	300	260	275
7	7510	2740	4910	7510	3010	5050	5610	1830	3550	300	260	273
8	7340	2560	4650	7650	2890	5000	5970	1870	3700	280	240	259
9	8010	2260	4510	7280	3230	5230	5560	1510	3130	250	230	234
10	7150	2390	4300	7900	2980	4940	2690	490	1370	230	220	228
11	7640	2250	4860	7630	3120	5200	1920	450	986	230	220	228
12	8010	2860	5190	7670	3180	5230	1910	420	848	240	210	226
13	7580	2950	5140	8070	3340	5600	2610	400	906	240	210	226
14	8130	3040	5300	8370	3470	5670	1140	350	579	250	220	229
15	7230	2560	4940	7850	3120	5100	1390	350	683	240	230	231
16	8060	2990	5250	7840	3320	5220	1080	340	609	250	230	233
17	8000	3100	5360	8250	3760	5800	1150	320	559	270	230	238
18	7650	3130	5300	7670	2950	5500	630	320	422	270	240	247
19	7940	2940	5140	6700	3020	4620	600	330	444	370	250	270
20	7570	2900	4970	7090	3090	4670	1050	360	560	590	260	335
21	7380	3240	5220	7280	3170	4950	1080	330	601	1270	250	340
22	6670	3080	4790	7150	3320	5130	700	330	481	290	200	262
23	6800	2950	4740	8170	3860	5520	890	340	549	280	260	271
24	7550	2830	4700	7760	3640	5410	1080	340	621	330	250	275
25	6850	3940	5000	6740	3000	4640	1000	310	506	270	210	232
26	6330	3070	4610	6980	2710	4720	530	300	358	210	190	195
27	5740	2560	4160	6090	2890	5200	460	300	346	310	180	195
28	6050	2400	4230	6710	3110	5370	670	310	375	210	180	186
29	6640	2730	4350	7590	2850	4750	1250	310	548	190	160	186
30	6840	2700	4500	9010	2700	5200	1620	310	689	240	180	191
31	6930	2640	4580	---	---	---	2050	320	800	260	190	202
MONTH	8460	2040	4760	9010	2220	5050	8570	300	1690	2210	180	293

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	200	180	191	---	---	---	250	200	223	---	---	---
2	390	190	197	190	140	163	240	200	218	300	170	206
3	270	190	206	160	140	156	240	200	214	300	180	216
4	380	190	234	170	140	157	220	190	209	330	150	210
5	210	200	208	160	150	163	200	200	---	280	100	194
6	220	210	211	180	160	165	---	---	---	410	100	223
7	760	210	273	180	150	170	---	---	---	390	170	221
8	1640	220	520	180	170	176	---	---	---	450	170	234
9	1260	230	395	180	160	167	---	---	---	490	170	249
10	1990	230	443	170	140	157	---	---	---	480	110	250
11	1090	240	428	160	120	138	---	---	---	550	170	299
12	1820	250	765	130	110	122	---	---	---	880	110	369
13	1700	390	889	140	120	126	---	---	---	2200	110	449
14	1870	420	915	170	130	141	---	---	---	1330	170	408
15	2170	460	1120	150	120	131	---	---	---	1190	170	463
16	2860	440	1270	150	120	131	---	---	---	1550	170	500
17	1630	460	915	150	130	139	---	---	---	1190	170	519
18	1940	450	1070	160	140	146	250	180	204	1290	160	600
19	2800	390	1340	170	140	151	300	190	213	1470	110	592
20	4270	740	2310	170	150	163	420	180	241	1200	160	577
21	4110	720	2140	190	160	170	300	130	198	1310	170	608
22	3600	640	1940	210	160	179	---	---	---	1430	180	600
23	---	---	---	210	170	186	---	---	---	1800	180	690
24	---	---	---	290	180	215	---	---	---	1670	180	555
25	---	---	---	220	190	200	---	---	---	700	180	273
26	---	---	---	200	190	195	---	---	---	290	160	198
27	---	---	---	390	190	206	---	---	---	200	110	171
28	---	---	---	220	190	209	---	---	---	200	130	157
29	---	---	---	250	200	215	---	---	---	170	130	147
30	---	---	---	250	210	221	---	---	---	170	110	138
31	---	---	---	250	200	226	---	---	---	150	100	126
MONTH	4270	180	818	390	110	169	420	130	215	2200	100	348

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	140	100	117	1370	240	829	---	---	---	4100	1430	2590
2	130	100	112	1230	230	721	---	---	---	4350	1440	2640
3	140	100	110	1130	220	623	---	---	---	3900	1310	2570
4	120	100	105	1390	210	670	---	---	---	4500	1300	2610
5	120	100	104	1470	210	669	---	---	---	4540	1530	2820
6	120	100	105	1800	210	776	---	---	---	4810	1140	3220
7	240	100	123	2620	200	892	---	---	---	2750	610	1450
8	270	100	141	2800	360	1200	---	---	---	2460	490	1190
9	330	110	162	3310	420	1940	---	---	---	2120	550	1190
10	510	120	200	3470	450	1710	---	---	---	2060	540	1150
11	830	120	241	---	---	---	---	---	---	1760	480	1020
12	800	120	181	---	---	---	---	---	---	1950	490	1070
13	550	120	208	---	---	---	---	---	---	1830	540	1110
14	470	120	224	---	---	---	---	---	---	1930	590	1190
15	640	130	261	---	---	---	---	---	---	1460	440	876
16	570	140	270	---	---	---	---	---	---	1640	500	919
17	730	140	320	---	---	---	---	---	---	1640	510	909
18	750	150	339	---	---	---	---	---	---	1650	540	1040
19	820	150	356	---	---	---	---	---	---	1870	460	1020
20	1040	110	408	---	---	---	---	---	---	2010	630	1220
21	940	160	427	---	---	---	---	---	---	2090	710	1360
22	1110	160	518	---	---	---	---	---	---	2300	830	1110
23	1140	170	501	---	---	---	---	---	---	1120	410	709
24	1000	170	476	---	---	---	---	---	---	1320	480	742
25	960	170	507	---	---	---	---	---	---	1400	530	793
26	1460	200	632	---	---	---	---	---	---	1150	360	653
27	1370	210	656	---	---	---	4890	1700	3300	1000	370	574
28	1800	210	701	---	---	---	4430	1600	3020	1310	410	699
29	1940	250	765	---	---	---	4390	1890	3010	1120	360	646
30	1560	200	869	---	---	---	4050	1500	2810	1010	370	613
31	---	---	---	---	---	---	3870	1350	2610	---	---	---
MONTH	1800	100	338	3470	210	953	4890	1350	2950	4810	360	1330

PH (STANDARD UNITS), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.1	6.7	6.9	7.1	6.6	6.8	7.3	6.8	7.0	7.1	6.6	6.8
2	7.0	6.6	6.8	7.2	6.7	6.9	7.2	6.8	7.0	7.0	6.5	6.8
3	7.0	6.7	6.8	7.2	6.6	6.9	7.2	6.8	7.0	6.7	6.4	6.5
4	7.0	6.7	6.8	7.2	6.7	6.9	7.3	6.8	7.0	6.6	6.4	6.5
5	6.9	6.6	6.8	7.2	6.7	6.9	7.1	6.7	7.0	6.6	6.5	6.5
6	6.9	6.6	6.8	7.1	6.7	6.9	7.1	6.7	6.9	6.7	6.5	6.6
7	6.8	6.6	6.7	7.1	6.7	6.9	7.1	6.7	6.9	6.6	6.5	6.6
8	6.8	6.6	6.7	7.1	6.7	6.9	7.1	6.7	6.9	6.7	6.5	6.6
9	6.8	6.6	6.7	7.1	6.7	7.0	7.0	6.6	6.8	6.6	6.4	6.5
10	7.1	6.6	6.8	7.1	6.7	6.9	6.8	6.4	6.6	6.5	6.3	6.4
11	7.1	6.6	6.8	7.1	6.7	6.9	6.8	6.4	6.6	6.4	6.4	6.4
12	7.1	6.7	6.9	7.1	6.7	6.9	6.7	6.4	6.5	6.4	6.4	6.4
13	7.1	6.7	6.9	7.1	6.8	7.0	6.8	6.4	6.6	6.5	6.4	6.5
14	7.1	6.7	6.9	7.2	6.8	7.0	6.6	6.5	6.5	6.5	6.4	6.5
15	7.1	6.6	6.9	7.1	6.7	6.9	6.8	6.5	6.6	6.5	6.4	6.5
16	7.1	6.7	6.9	7.1	6.8	7.0	6.7	6.5	6.6	6.5	6.4	6.5
17	7.1	6.7	6.9	7.2	6.9	7.0	6.8	6.5	6.6	6.6	6.4	6.5
18	7.1	6.7	6.9	7.2	6.8	7.0	6.9	6.6	6.7	6.5	6.4	6.5
19	7.1	6.7	6.9	7.1	6.8	7.0	6.8	6.6	6.7	6.7	6.4	6.5
20	7.1	6.6	6.9	7.2	6.8	7.0	7.0	6.7	6.8	6.7	6.5	6.6
21	7.1	6.7	6.9	7.2	6.8	7.0	7.0	6.6	6.8	6.9	6.4	6.6
22	7.0	6.6	6.8	7.2	6.9	7.0	6.9	6.6	6.8	6.5	6.3	6.4
23	7.0	6.6	6.9	7.3	6.9	7.1	6.9	6.7	6.8	6.6	6.4	6.5
24	7.1	6.6	6.9	7.2	6.9	7.1	7.0	6.6	6.8	6.6	6.5	6.5
25	7.1	6.7	6.9	7.2	6.8	7.0	6.9	6.6	6.8	6.6	6.5	6.6
26	7.0	6.7	6.9	7.2	6.8	7.0	6.8	6.5	6.7	6.7	6.5	6.6
27	7.0	6.6	6.8	7.3	6.9	7.1	6.8	6.5	6.6	6.6	6.5	6.6
28	7.0	6.6	6.8	7.3	6.9	7.1	6.9	6.5	6.7	6.6	6.5	6.5
29	7.0	6.6	6.8	7.3	6.8	7.0	7.0	6.5	6.7	6.6	6.5	6.5
30	7.1	6.6	6.9	7.3	6.8	7.0	7.1	6.5	6.8	6.6	6.4	6.5
31	7.1	6.6	6.9	---	---	---	7.0	6.5	6.8	6.6	6.5	6.5
MONTH	7.1	6.6	6.8	7.3	6.6	7.0	7.3	6.4	6.8	7.1	6.3	6.5

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.5	6.4	6.5	---	---	---	6.5	6.4	6.5	---	---	---
2	6.6	6.5	6.5	6.5	6.3	6.4	6.5	6.4	6.5	6.4	6.2	6.3
3	6.7	6.5	6.6	6.3	6.2	6.3	6.5	6.4	6.5	6.5	6.3	6.3
4	6.7	6.5	6.6	6.3	6.2	6.3	6.5	6.4	6.4	6.4	6.3	6.4
5	6.6	6.5	6.5	6.3	6.2	6.3	6.5	6.5	---	6.4	6.3	6.3
6	6.6	6.5	6.6	6.4	6.2	6.3	---	---	---	6.5	6.3	6.4
7	6.8	6.5	6.6	6.4	6.3	6.3	---	---	---	6.6	6.3	6.5
8	6.9	6.5	6.7	6.5	6.3	6.4	---	---	---	6.7	6.4	6.5
9	6.8	6.5	6.6	6.5	6.4	6.5	---	---	---	6.7	6.4	6.6
10	6.9	6.5	6.6	6.5	6.4	6.5	---	---	---	6.7	6.5	6.6
11	6.8	6.5	6.6	6.5	6.2	6.3	---	---	---	6.7	6.4	6.6
12	6.9	6.5	6.7	6.3	6.2	6.3	---	---	---	6.7	6.3	6.5
13	6.8	6.5	6.7	6.4	6.2	6.3	---	---	---	6.6	6.3	6.4
14	6.9	6.5	6.7	6.4	6.3	6.4	---	---	---	6.5	6.2	6.3
15	6.9	6.5	6.7	6.4	6.3	6.4	---	---	---	6.4	6.1	6.3
16	6.9	6.4	6.7	6.4	6.4	6.4	---	---	---	6.6	6.1	6.4
17	6.8	6.4	6.6	6.5	6.4	6.4	---	---	---	6.7	6.3	6.5
18	6.8	6.4	6.6	6.5	6.4	6.4	6.5	6.4	6.5	6.7	6.3	6.5
19	6.9	6.5	6.7	6.5	6.4	6.4	6.6	6.4	6.5	6.7	6.3	6.5
20	7.0	6.6	6.8	6.5	6.4	6.4	6.6	6.4	6.5	6.7	6.4	6.5
21	7.0	6.5	6.8	6.5	6.4	6.5	6.5	6.4	6.5	6.6	6.3	6.5
22	7.0	6.5	6.8	6.5	6.4	6.5	---	---	---	6.6	6.3	6.4
23	---	---	---	6.5	6.4	6.5	---	---	---	6.6	6.2	6.4
24	---	---	---	6.7	6.4	6.6	---	---	---	6.6	6.2	6.4
25	---	---	---	6.6	6.4	6.5	---	---	---	6.4	6.3	6.3
26	---	---	---	6.5	6.4	6.4	---	---	---	6.3	6.2	6.3
27	---	---	---	6.5	6.3	6.4	---	---	---	6.4	6.3	6.3
28	---	---	---	6.5	6.3	6.4	---	---	---	6.4	6.3	6.4
29	---	---	---	6.8	6.4	6.5	---	---	---	6.4	6.3	6.4
30	---	---	---	6.6	6.4	6.5	---	---	---	6.4	6.3	6.4
31	---	---	---	6.5	6.4	6.5	---	---	---	6.4	6.3	6.3
MONTH	7.0	6.4	6.7	6.8	6.2	6.4	6.6	6.4	6.5	6.7	6.1	6.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.4	6.2	6.3	6.6	6.2	6.5	6.7	6.5	6.6	7.0	6.7	6.8
2	6.3	6.2	6.3	6.6	6.2	6.4	6.7	6.5	6.6	7.0	6.7	6.8
3	6.3	6.1	6.2	6.7	6.2	6.4	6.8	6.5	6.6	7.0	6.7	6.8
4	6.2	6.1	6.2	6.7	6.2	6.4	6.8	6.4	6.6	7.0	6.7	6.8
5	6.2	6.0	6.1	6.7	6.2	6.4	6.9	6.4	6.6	7.1	6.6	6.8
6	6.1	6.0	6.1	6.7	6.2	6.5	6.8	6.4	6.6	7.1	6.6	6.9
7	6.2	6.0	6.1	6.8	6.2	6.5	6.8	6.5	6.7	6.9	6.4	6.7
8	6.2	6.0	6.1	6.8	6.2	6.5	6.9	6.5	6.7	6.8	6.3	6.5
9	6.3	6.0	6.1	6.8	6.3	6.5	6.9	6.5	6.7	6.8	6.3	6.5
10	6.3	6.0	6.1	6.9	6.3	6.6	6.9	6.5	6.7	6.7	6.3	6.5
11	6.4	6.1	6.2	6.9	6.3	6.6	6.9	6.6	6.8	6.6	6.2	6.5
12	6.3	6.1	6.2	6.9	6.4	6.6	7.0	6.7	6.9	6.7	6.2	6.5
13	6.4	6.1	6.2	6.8	6.4	6.6	7.1	6.7	6.9	6.7	6.3	6.5
14	6.4	6.1	6.2	6.8	6.4	6.6	7.1	6.6	6.9	6.8	6.3	6.6
15	6.4	6.2	6.3	6.8	6.4	6.6	7.0	6.5	6.8	6.7	6.3	6.5
16	6.5	6.2	6.3	6.8	6.4	6.6	7.1	6.6	6.9	6.7	6.3	6.5
17	6.6	6.2	6.3	6.7	6.3	6.6	7.1	6.7	6.9	6.6	6.4	6.5
18	6.6	6.2	6.4	6.7	6.3	6.5	7.1	6.7	6.9	6.6	6.4	6.5
19	6.7	6.2	6.4	6.7	6.3	6.5	7.1	6.7	6.9	6.7	6.4	6.5
20	6.6	6.1	6.3	6.7	6.3	6.5	7.0	6.6	6.9	6.9	6.4	6.6
21	6.5	6.0	6.2	6.6	6.4	6.5	7.0	6.7	6.9	6.9	6.6	6.8
22	6.5	6.1	6.3	6.6	6.3	6.5	7.0	6.7	6.9	6.9	6.4	6.7
23	6.5	6.1	6.3	6.7	6.3	6.5	7.0	6.7	6.9	6.8	6.4	6.6
24	6.5	6.1	6.3	6.6	6.3	6.5	7.1	6.7	6.9	6.8	6.4	6.6
25	6.5	6.1	6.3	6.7	6.4	6.5	7.1	6.7	6.9	6.7	6.3	6.5
26	6.6	6.2	6.4	6.7	6.4	6.6	7.0	6.7	6.9	6.7	6.3	6.5
27	6.6	6.2	6.4	6.7	6.4	6.6	7.0	6.7	6.9	6.6	6.2	6.4
28	6.5	6.1	6.4	6.7	6.5	6.6	7.0	6.6	6.8	6.7	6.2	6.5
29	6.6	6.2	6.4	6.7	6.5	6.6	7.1	6.7	6.9	6.6	6.2	6.5
30	6.7	6.2	6.5	6.8	6.5	6.6	7.0	6.7	6.9	6.6	6.2	6.4
31	---	---	---	6.7	6.5	6.6	7.0	6.6	6.8	---	---	---
MONTH	6.7	6.0	6.3	6.9	6.2	6.5	7.1	6.4	6.8	7.1	6.2	6.6
YEAR	7.3	6.0	6.6									

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.0	21.0	21.5	16.0	15.0	15.5	10.0	9.0	9.5	4.5	4.0	4.0
2	22.0	21.0	21.5	16.0	15.0	15.5	9.5	9.0	9.5	5.0	4.5	4.5
3	21.5	21.0	21.0	16.0	15.0	15.5	9.5	8.5	9.0	5.0	4.0	4.5
4	21.0	20.5	21.0	15.5	15.0	15.5	10.0	9.0	9.5	4.0	3.5	4.0
5	21.0	20.5	20.5	15.5	15.0	15.0	10.0	9.5	9.5	4.0	3.5	4.0
6	21.0	20.5	20.5	15.5	15.0	15.5	10.0	9.0	9.5	4.0	3.5	4.0
7	21.0	20.0	20.5	15.5	15.0	15.5	10.0	9.5	9.5	4.0	3.5	3.5
8	20.5	19.0	19.5	15.5	14.5	15.0	10.0	9.5	10.0	4.0	3.5	4.0
9	19.5	18.5	19.0	15.5	14.5	15.0	10.5	10.0	10.0	4.0	2.5	3.0
10	19.5	18.5	19.0	15.5	14.5	15.0	10.0	9.0	9.5	3.0	2.0	2.5
11	19.5	18.5	19.0	15.5	14.5	15.0	9.0	8.5	9.0	2.5	1.5	2.0
12	19.5	18.5	19.0	15.0	14.5	15.0	8.5	8.5	8.5	2.0	1.5	1.5
13	19.5	19.0	19.0	15.0	14.0	14.5	8.5	8.0	8.0	1.5	1.5	1.5
14	19.5	18.5	19.0	15.0	14.0	14.5	8.0	7.5	8.0	2.0	1.5	1.5
15	19.0	18.0	18.5	15.0	14.5	14.5	7.5	7.0	7.0	2.0	1.5	1.5
16	18.5	18.0	18.0	14.5	14.0	14.5	7.5	7.0	7.0	2.0	1.0	1.5
17	18.0	17.0	17.5	14.5	13.5	14.0	7.0	6.5	7.0	2.0	1.0	1.5
18	17.5	17.0	17.0	14.5	14.0	14.5	6.5	6.0	6.5	2.0	1.0	1.5
19	17.5	16.5	17.0	14.5	14.0	14.0	6.5	5.5	6.0	1.5	.5	1.0
20	17.5	16.5	17.0	14.0	13.5	13.5	6.0	4.5	5.5	1.0	.5	1.0
21	17.0	16.5	16.5	13.5	13.0	13.0	6.0	5.0	5.5	1.5	1.0	1.0
22	17.0	16.5	17.0	13.0	12.0	12.5	6.0	5.5	5.5	2.0	1.5	1.5
23	17.5	16.5	17.0	12.5	12.0	12.0	6.0	5.0	5.5	2.0	1.5	2.0
24	17.0	16.0	16.5	12.5	12.0	12.0	6.0	5.0	5.5	3.0	2.0	2.0
25	16.5	15.5	16.0	12.5	11.5	12.0	5.5	5.5	5.5	3.5	2.5	3.0
26	17.0	16.0	16.5	12.0	10.5	11.0	5.5	5.0	5.0	3.0	3.0	3.0
27	17.0	16.0	16.5	11.0	9.5	10.0	5.5	4.5	5.0	3.5	3.0	3.0
28	17.0	16.0	16.5	10.5	9.5	10.0	4.5	4.0	4.5	3.5	3.0	3.0
29	16.5	15.5	16.0	10.0	9.5	9.5	4.5	3.5	4.0	3.5	3.0	3.0
30	16.0	15.0	15.5	10.0	9.0	9.5	4.0	3.5	4.0	3.5	3.0	3.0
31	16.0	15.0	15.5	---	---	---	4.0	3.5	4.0	3.5	2.5	3.0
MONTH	22.0	15.0	18.0	16.0	9.0	13.5	10.5	3.5	7.0	5.0	.5	2.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.0	2.5	2.5	---	---	---	11.5	11.0	11.0	---	---	---
2	2.5	2.0	2.5	4.0	3.0	3.5	11.5	11.0	11.0	16.0	15.5	15.5
3	2.5	1.5	2.0	4.0	3.0	3.5	12.0	11.0	11.5	16.5	15.5	16.0
4	2.5	1.5	2.0	4.5	3.0	4.0	12.0	11.0	11.5	17.0	16.0	16.5
5	2.5	1.5	2.0	5.0	4.0	4.5	11.5	11.5	---	17.0	16.0	16.5
6	2.5	1.5	1.5	6.0	4.5	5.0	---	---	---	17.5	16.5	17.0
7	2.0	.5	1.0	7.0	5.0	6.0	---	---	---	18.0	17.0	17.5
8	2.0	.5	1.0	7.5	6.0	7.0	---	---	---	19.0	17.5	18.0
9	1.5	.5	1.0	7.5	6.5	7.0	---	---	---	19.5	18.0	18.5
10	1.5	.5	1.0	7.5	6.5	7.0	---	---	---	20.0	19.0	19.5
11	2.0	.5	1.0	7.5	6.0	6.5	---	---	---	20.5	19.5	20.0
12	1.0	.5	.5	6.0	5.5	6.0	---	---	---	20.5	20.0	20.0
13	1.0	.5	1.0	6.5	5.5	6.0	---	---	---	21.0	20.0	20.5
14	1.0	1.0	1.0	7.0	6.0	6.5	---	---	---	20.5	20.0	20.5
15	1.0	1.0	1.0	6.5	6.0	6.5	---	---	---	21.0	20.0	20.5
16	1.0	.5	1.0	6.5	5.5	6.0	---	---	---	21.0	20.5	21.0
17	1.0	.5	.5	7.0	6.0	6.5	---	---	---	21.0	20.0	20.5
18	1.0	.5	.5	7.5	6.5	7.0	11.0	10.5	10.5	21.0	20.0	20.5
19	1.0	.5	1.0	7.5	6.5	7.0	11.0	10.5	10.5	20.5	20.0	20.0
20	1.5	1.0	1.0	8.0	7.0	7.5	11.5	10.5	11.0	20.5	20.0	20.0
21	1.5	1.0	1.0	8.0	7.5	8.0	12.0	11.0	11.5	20.5	20.0	20.0
22	1.5	1.0	1.5	9.0	8.0	8.5	---	---	---	21.0	20.0	20.5
23	---	---	---	9.5	8.0	8.5	---	---	---	21.0	20.0	20.5
24	---	---	---	10.0	9.0	9.5	---	---	---	21.0	20.5	21.0
25	---	---	---	10.0	9.5	9.5	---	---	---	21.5	20.5	21.0
26	---	---	---	9.5	9.0	9.5	---	---	---	21.0	20.5	21.0
27	---	---	---	9.5	9.0	9.0	---	---	---	20.5	20.0	20.5
28	---	---	---	9.5	9.0	9.0	---	---	---	20.5	20.0	20.0
29	---	---	---	10.5	9.0	9.5	---	---	---	20.5	19.5	20.0
30	---	---	---	11.0	9.5	10.0	---	---	---	21.0	19.5	20.0
31	---	---	---	11.5	10.0	10.5	---	---	---	20.5	19.0	20.0
MONTH	3.0	.5	1.5	11.5	3.0	7.0	12.0	10.5	11.0	21.5	15.5	19.5

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.5	19.0	20.0	25.0	24.0	24.5	28.0	27.0	27.5	26.5	26.0	26.5
2	20.5	19.0	20.0	24.5	24.0	24.5	28.5	27.5	28.0	26.5	26.0	26.5
3	20.0	19.0	19.5	25.0	24.0	24.5	28.5	28.0	28.0	27.0	26.5	26.5
4	20.0	18.5	19.5	24.5	23.5	24.0	28.5	28.0	28.5	27.0	26.5	26.5
5	20.0	18.5	19.5	24.0	23.0	23.5	29.0	28.0	28.5	27.0	26.5	27.0
6	20.0	19.0	19.5	23.5	23.0	23.5	29.0	28.5	28.5	26.5	26.0	26.5
7	21.0	19.5	20.0	24.0	23.0	23.5	28.5	28.0	28.0	26.5	25.5	26.0
8	21.5	20.5	21.0	24.0	23.5	23.5	28.5	27.5	28.0	26.0	25.5	25.5
9	21.5	21.0	21.5	24.5	20.0	23.5	28.5	28.0	28.0	25.5	25.0	25.0
10	22.5	21.5	22.0	21.0	20.0	20.5	28.5	27.5	28.0	25.0	24.5	24.5
11	22.5	21.5	22.0	25.0	20.0	22.0	28.0	27.0	27.5	24.5	24.0	24.5
12	22.0	21.0	21.5	25.5	24.5	25.0	27.5	26.0	26.5	24.0	23.5	24.0
13	22.0	21.0	21.5	26.0	24.5	25.0	26.0	25.0	25.5	24.0	23.5	23.5
14	22.5	21.0	22.0	26.0	25.5	25.5	25.5	25.0	25.0	24.0	23.5	24.0
15	22.5	22.0	22.0	26.5	25.5	26.0	25.5	24.0	24.5	24.0	23.0	23.5
16	23.0	22.0	22.5	27.0	26.0	26.5	24.5	23.5	24.0	24.0	23.5	23.5
17	23.0	22.5	23.0	27.5	26.5	27.0	24.0	23.0	23.5	24.5	23.5	24.0
18	23.5	23.0	23.0	27.5	27.0	27.0	23.5	22.5	23.0	24.0	23.5	24.0
19	23.5	23.0	23.0	27.5	27.0	27.0	23.5	23.0	23.0	23.5	22.5	23.5
20	24.0	23.0	23.5	28.0	27.0	27.5	24.0	23.0	23.5	23.0	22.0	22.5
21	24.0	23.5	23.5	27.5	26.5	27.0	24.0	23.0	23.5	23.5	22.0	22.5
22	24.0	23.0	23.5	27.0	26.0	26.5	24.0	23.0	23.5	22.5	21.5	22.0
23	24.0	23.5	24.0	27.0	26.0	26.5	24.0	23.0	23.5	21.5	21.0	21.0
24	24.0	23.5	23.5	27.0	26.0	26.5	24.5	23.5	24.0	21.0	20.5	20.5
25	23.5	23.0	23.5	27.5	26.5	27.0	25.0	24.0	24.5	21.0	20.0	20.5
26	23.5	23.0	23.5	27.5	27.0	27.0	25.5	24.5	25.0	20.5	20.0	20.0
27	24.0	23.0	23.5	27.5	27.0	27.0	25.5	24.5	25.0	20.5	20.0	20.0
28	24.0	23.5	23.5	27.5	26.5	27.0	26.0	25.0	25.5	20.5	20.0	20.0
29	24.5	23.5	24.0	27.5	27.0	27.0	26.0	25.5	25.5	21.0	20.5	21.0
30	24.5	24.0	24.0	27.5	26.5	27.0	26.5	25.5	26.0	21.0	20.0	20.5
31	---	---	---	27.5	27.0	27.0	27.0	26.0	26.0	---	---	---
MONTH	24.5	18.5	22.0	28.0	20.0	25.5	29.0	22.5	26.0	27.0	20.0	23.5

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.2	4.2	5.3	7.7	4.2	6.1	9.1	6.5	8.0	10.5	8.9	9:8
2	6.0	4.1	5.2	8.2	5.2	6.8	9.1	6.5	7.9	10.3	8.3	9.3
3	6.2	4.3	5.4	8.0	4.7	6.6	9.2	6.7	8.0	9.0	8.4	8.7
4	6.2	4.5	5.5	8.2	5.2	6.8	9.2	6.8	8.2	9.2	8.7	8.9
5	6.1	4.2	5.2	8.1	5.2	6.8	8.8	6.4	7.9	9.4	8.9	9.1
6	6.1	4.0	5.2	7.8	5.0	6.6	8.6	6.4	7.6	9.6	9.0	9.2
7	5.9	3.9	5.1	7.7	4.7	6.4	8.3	6.0	7.3	9.6	9.1	9.3
8	6.3	3.9	5.2	7.9	4.6	6.5	8.3	5.8	7.1	9.6	9.2	9.4
9	6.5	4.1	5.4	7.8	5.3	6.7	8.0	5.1	6.8	10.2	9.5	9.8
10	6.4	4.5	5.4	7.8	4.9	6.4	7.4	4.3	6.0	10.5	9.8	10.1
11	6.6	4.3	5.4	7.7	4.9	6.4	7.2	4.8	6.0	10.6	10.0	10.4
12	6.6	4.6	5.7	7.8	4.8	6.5	6.9	5.1	5.8	10.6	10.2	10.4
13	6.3	4.5	5.5	8.0	5.5	7.0	7.6	5.3	6.2	10.7	10.4	10.5
14	6.4	4.4	5.5	8.1	5.7	7.1	7.2	6.1	6.6	10.7	10.3	10.5
15	6.4	3.9	5.4	7.9	5.4	6.8	8.3	6.8	7.4	10.7	10.2	10.4
16	6.6	4.4	5.7	8.2	5.7	7.1	8.1	7.2	7.5	10.5	9.6	10.2
17	6.9	4.6	6.0	8.8	6.8	7.8	8.5	7.4	8.0	10.3	9.7	10.0
18	6.7	4.7	5.9	8.6	6.5	7.9	9.9	8.3	8.8	10.3	9.6	10.0
19	6.7	4.7	5.9	8.5	6.6	7.6	9.8	8.4	9.1	10.8	9.8	10.2
20	6.8	4.6	5.8	8.8	6.8	7.8	10.5	8.7	9.5	10.5	9.5	10.1
21	6.7	4.9	5.9	9.0	7.0	8.1	10.4	8.6	9.6	10.2	9.2	9.8
22	6.5	4.7	5.7	9.1	7.2	8.4	10.0	8.7	9.3	10.4	9.1	9.8
23	6.5	4.6	5.6	9.5	7.6	8.7	10.1	8.8	9.4	10.3	9.9	10.2
24	7.1	4.5	5.9	9.3	7.7	8.7	10.2	8.6	9.4	10.3	9.9	10.1
25	7.0	5.2	6.3	9.3	7.4	8.5	10.1	9.2	9.6	10.4	10.1	10.2
26	6.7	5.3	6.1	9.8	7.3	8.8	9.9	9.0	9.5	10.3	10.0	10.2
27	6.6	4.7	5.8	10.1	7.9	9.3	10.0	8.9	9.5	10.2	9.7	10.0
28	6.7	4.7	5.8	9.8	7.6	8.8	10.5	9.0	9.7	9.9	9.4	9.7
29	6.8	4.6	5.8	9.1	6.7	8.1	11.1	9.3	10.1	9.9	9.5	9.7
30	6.9	4.7	6.1	9.3	6.9	8.2	11.0	9.2	10.1	9.8	9.6	9.7
31	6.9	4.9	6.1	---	---	---	10.7	9.1	9.9	9.8	9.5	9.7
MONTH	7.1	3.9	5.6	10.1	4.2	7.4	11.1	4.3	8.3	10.8	8.3	9.9

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.6	9.4	9.5	---	---	---	7.6	6.2	6.8	---	---	---
2	10.0	9.5	9.7	11.6	11.3	11.4	7.8	6.3	7.1	6.0	4.0	5.2
3	9.9	9.3	9.7	11.4	11.0	11.2	7.7	6.1	6.9	6.3	4.1	5.3
4	9.8	9.1	9.4	11.1	10.8	10.9	7.7	6.2	7.0	6.1	4.1	5.2
5	9.6	8.9	9.3	10.9	10.5	10.8	6.9	6.8	---	6.4	4.2	5.3
6	9.5	8.8	9.2	10.7	9.2	10.4	---	---	---	6.9	4.7	5.8
7	9.6	8.9	9.3	10.3	9.9	10.1	---	---	---	7.2	4.8	6.2
8	9.4	8.4	9.0	10.4	9.9	10.0	---	---	---	7.7	4.9	6.7
9	9.1	7.9	8.6	10.7	10.0	10.3	---	---	---	8.0	5.4	7.2
10	8.9	7.8	8.4	10.5	10.1	10.3	---	---	---	8.1	5.9	7.4
11	---	---	---	10.6	10.2	10.3	---	---	---	7.8	6.0	7.4
12	---	---	---	10.7	10.4	10.6	---	---	---	7.6	6.2	7.0
13	10.6	9.8	10.2	10.7	10.4	10.5	---	---	---	6.9	5.7	6.4
14	10.7	9.7	10.3	10.8	10.1	10.4	---	---	---	6.3	4.8	5.7
15	10.6	9.5	10.1	10.4	10.1	10.2	---	---	---	5.9	4.3	5.2
16	10.4	8.6	9.7	10.6	9.9	10.3	---	---	---	5.7	4.1	5.0
17	11.0	8.6	9.2	10.4	9.8	10.1	---	---	---	6.1	4.4	5.3
18	9.9	8.7	9.4	10.3	9.6	10.0	8.0	7.3	7.6	6.2	4.5	5.5
19	10.0	8.9	9.5	10.3	9.4	9.9	8.1	7.4	7.7	6.4	5.0	5.8
20	10.0	8.7	9.4	10.1	9.3	9.7	8.3	7.4	7.9	6.1	5.1	5.7
21	9.4	8.1	8.8	10.0	9.1	9.6	8.1	7.3	7.7	5.6	4.5	5.2
22	9.2	7.8	8.5	9.8	8.8	9.3	---	---	---	5.4	4.2	4.8
23	---	---	---	9.5	8.5	9.0	---	---	---	5.4	3.9	4.6
24	---	---	---	9.9	8.6	9.3	---	---	---	5.3	3.6	4.3
25	---	---	---	9.5	8.1	8.9	---	---	---	4.6	3.4	4.1
26	---	---	---	9.1	7.8	8.4	---	---	---	4.4	3.3	4.0
27	---	---	---	8.9	7.4	8.1	---	---	---	4.7	3.3	4.1
28	---	---	---	8.9	7.3	7.9	---	---	---	4.7	4.3	4.5
29	---	---	---	9.3	7.1	8.0	---	---	---	4.7	4.2	4.5
30	---	---	---	8.5	6.6	7.5	---	---	---	5.1	4.3	4.6
31	---	---	---	8.1	6.4	7.2	---	---	---	5.1	4.4	4.8
MONTH	11.0	7.8	9.4	11.6	6.4	9.7	8.3	6.1	7.3	8.1	3.3	5.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	5.1	4.5	4.9	7.7	5.2	6.9	---	---	---	5.8	3.7	4.7
2	5.0	4.6	4.8	7.5	4.7	6.5	---	---	---	5.6	3.6	4.7
3	4.9	4.4	4.7	7.9	4.6	6.4	---	---	---	5.4	3.7	4.7
4	4.8	4.3	4.6	7.9	4.7	6.4	---	---	---	6.4	3.7	4.8
5	4.7	4.2	4.5	8.0	4.8	6.4	---	---	---	6.8	4.0	5.3
6	4.4	3.8	4.1	7.5	4.7	6.3	---	---	---	7.0	4.6	6.1
7	4.1	3.4	3.8	7.3	4.2	5.9	---	---	---	6.1	3.0	4.9
8	3.7	3.2	3.5	7.3	4.0	5.7	---	---	---	5.4	1.8	3.9
9	3.7	2.9	3.3	7.2	3.9	5.7	---	---	---	5.7	2.1	4.0
10	3.6	2.5	3.2	7.3	3.7	5.6	5.4	2.7	4.0	4.9	1.6	3.6
11	4.3	2.5	3.4	7.2	3.5	5.4	5.2	2.4	4.2	4.4	1.2	3.3
12	4.0	2.3	3.2	6.9	3.2	5.2	6.5	4.0	5.4	4.8	1.4	3.0
13	4.1	2.2	3.2	6.3	2.8	4.8	7.1	4.8	6.2	4.9	1.9	3.5
14	4.7	2.2	3.6	5.9	2.5	4.5	7.1	4.7	6.2	5.7	2.3	4.5
15	5.6	3.5	4.4	5.3	2.3	4.2	7.1	4.2	5.9	5.0	3.0	4.1
16	6.1	3.9	4.6	5.0	2.0	4.0	6.9	4.5	5.9	5.0	2.8	4.0
17	6.4	3.7	4.8	4.8	1.5	3.5	7.0	4.7	6.0	4.7	2.9	3.9
18	6.1	3.6	4.7	4.9	1.3	3.2	6.9	5.1	6.1	5.1	3.0	4.1
19	7.3	3.4	5.3	4.0	1.3	2.9	6.7	4.6	5.7	5.2	3.4	4.4
20	7.1	3.7	5.5	---	---	---	6.4	4.3	5.5	6.3	3.7	5.1
21	7.4	3.5	5.6	---	---	---	6.4	4.4	5.5	6.2	3.3	5.3
22	7.4	4.5	6.0	---	---	---	6.3	4.0	5.3	6.2	3.5	5.0
23	7.4	4.3	6.0	---	---	---	6.4	4.1	5.5	6.0	3.9	5.2
24	7.8	4.1	6.0	---	---	---	6.6	4.5	5.7	6.2	3.9	5.3
25	7.7	4.3	6.4	---	---	---	6.9	4.4	5.7	6.1	3.5	5.1
26	8.0	5.0	6.8	---	---	---	6.3	4.0	5.3	5.3	2.8	4.3
27	8.1	5.2	7.0	---	---	---	6.0	4.1	5.1	4.7	2.4	3.7
28	7.8	5.0	6.8	---	---	---	5.9	3.6	4.8	4.7	2.3	3.6
29	7.8	5.0	6.8	---	---	---	6.0	4.0	5.0	4.3	1.9	3.2
30	8.0	5.3	6.9	---	---	---	5.7	3.9	4.9	4.7	1.7	3.4
31	---	---	---	---	---	---	5.7	3.6	4.7	---	---	---
MONTH	8.1	2.2	5.0	8.0	1.3	5.2	7.1	2.4	5.4	7.0	1.2	4.4

DELAWARE RIVER BASIN

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE

LOCATION.--Lat 39°30'03", long 75°34'07", New Castle County, Hydrologic Unit 02040205, water-quality recorder located on platform about 0.4 mi (0.6 km) downstream from Reedy Island near Port Penn.

DRAINAGE AREA.--11,200 mi² (29,100 km²), approximately.

PERIOD OF RECORD.--October 1963 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: February 1970 to current year.
WATER TEMPERATURES: February 1970 to current year.
DISSOLVED OXYGEN: February 1970 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 35,600 micromhos Nov. 15, 1978; minimum, 100 micromhos on several days in 1969, 1970, 1974, and 1979.
pH: Maximum, 8.8 Aug. 29, Sept. 2, 1973; minimum, 5.4 Dec. 31, 1972.
WATER TEMPERATURES: Maximum, 29.5°C Aug. 5, 1975; minimum, freezing point on many days during winter months.
DISSOLVED OXYGEN: Maximum, 17.1 mg/L Dec. 16, 19, 1976; minimum, 0.3 mg/L Sept. 16, 17, 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)
APR 28...	0930	1630	7.0	13.5	36	210	180	26	35	280	13	33

DATE	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)
APR 28...	0	27	5.3	98	470	1020	1.7	.23	1.9	3.7	.39	1.9

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN,TOT IN BOTTOM MATERIAL (MG/KG AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO. TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)
APR 28...	.91	1.3	410	3.2	414	.170	.02	47	0	10	10

DATE	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)
APR 28...	10	10	3700	10	960	.02	0	50	3.4	1.2	.0

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
APR 28...	0	.0	0	.0	.0	.0	.0	.0	.0	.0	0

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	19600	11200	14700	18200	11000	14100	19600	12000	15000	13400	4800	8140
2	19400	11200	15000	20400	11500	14900	19400	11200	15000	9640	5120	7690
3	20800	11600	15400	18800	11000	14300	19200	11400	14000	---	---	---
4	21800	11900	16300	20200	12000	15000	18600	11600	14900	---	---	---
5	20600	12000	15800	20800	11600	16000	16400	10400	12700	---	---	---
6	20400	12400	16300	20000	11900	15600	16200	10000	12300	---	---	---
7	19400	12000	15100	18800	12400	15300	15000	9520	11600	---	---	---
8	19400	11800	14600	17600	11200	14000	15600	9240	12100	---	---	---
9	20300	11200	14400	17800	11000	14300	14000	8720	11000	---	---	---
10	18100	11000	13600	16600	10800	13100	11900	6760	9000	---	---	---
11	20000	10200	13500	17000	11000	13600	13600	5200	7830	---	---	---
12	21500	11200	15400	15500	11100	12900	11800	4560	6840	---	---	---
13	19900	11600	14900	18600	11400	14700	13800	4560	7470	---	---	---
14	20000	11800	14700	17600	11400	14100	8560	3240	5260	---	---	---
15	19000	11200	14400	35600	10700	13200	11600	3360	5920	---	---	---
16	20000	11500	14900	16800	10200	12800	10000	2760	4830	---	---	---
17	21100	12000	15100	18600	10800	14100	10400	2400	5250	4200	360	1510
18	20200	11800	15800	15800	10400	13000	8440	1800	3410	3120	360	802
19	18000	11600	14800	15200	10000	11900	10400	1600	4210	---	---	---
20	19000	11200	13900	16200	10200	12200	15400	1600	7550	---	---	---
21	19600	11500	15000	17600	10400	13100	16200	4800	10500	---	---	---
22	16200	10800	13200	18200	9400	13200	12000	3560	7270	---	---	---
23	17800	9560	13000	16600	10600	13600	14000	3400	8670	---	---	---
24	20400	9960	13800	17200	11000	13800	13000	3760	8620	---	---	---
25	20800	11600	16500	16800	10400	13000	16000	4400	9300	---	---	---
26	18400	9800	14000	18400	9920	13900	7960	2600	4590	400	100	216
27	17400	8600	11900	17600	11000	13800	7560	2160	4310	200	100	136
28	19600	8440	13100	---	---	---	9800	2000	4310	160	100	133
29	19200	10200	13900	---	---	---	13200	2160	6310	140	100	113
30	18800	11000	14300	19800	12300	15600	14600	3560	7800	200	100	123
31	19600	11200	14700	---	---	---	14200	4000	7740	800	100	155
MONTH	21800	8440	14600	35600	9400	13900	19600	1600	8570	13400	100	1900

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	200	100	159	---	---	---	---	---	---	4320	1000	1890
2	200	100	162	440	160	332	---	---	---	3800	1000	1800
3	---	---	---	440	160	288	---	---	---	3800	960	1880
4	---	---	---	840	320	528	---	---	---	4040	960	1910
5	---	---	---	560	400	447	---	---	---	5160	960	2390
6	---	---	---	---	---	---	---	---	---	7120	1200	3600
7	---	---	---	720	160	446	---	---	---	6000	1560	3300
8	---	---	---	440	160	262	---	---	---	6440	1400	3000
9	---	---	---	400	100	224	---	---	---	6200	1360	3010
10	---	---	---	960	160	245	---	---	---	5400	1240	2680
11	---	---	---	400	100	203	---	---	---	6440	1400	2960
12	---	---	---	400	100	193	---	---	---	7600	1640	3480
13	---	---	---	800	100	185	---	---	---	7760	1800	3680
14	---	---	---	840	100	188	---	---	---	6800	1920	3310
15	---	---	---	140	100	117	---	---	---	7120	1960	3500
16	---	---	---	1200	100	168	---	---	---	7120	2000	3590
17	---	---	---	1360	100	235	---	---	---	6800	2000	3680
18	---	---	---	2200	100	303	4400	1000	1860	8160	2560	4630
19	---	---	---	3600	100	773	6040	1160	2490	9400	2800	5510
20	---	---	---	3400	140	840	6160	1120	2810	8840	3000	5390
21	---	---	---	3920	160	1140	6840	1160	3020	9120	2960	5400
22	---	---	---	5520	160	1570	6720	1360	3110	9000	3000	4990
23	---	---	---	4200	160	1230	6400	1200	2850	9360	3120	5200
24	---	---	---	---	---	---	6200	1240	2840	7160	2840	4590
25	---	---	---	---	---	---	6200	1400	2930	6600	1800	3300
26	---	---	---	---	---	---	7400	1600	3300	5800	840	2320
27	---	---	---	---	---	---	8160	1760	3600	3000	1360	1830
28	---	---	---	---	---	---	6200	1560	2860	---	---	---
29	---	---	---	---	---	---	5640	1200	2520	---	---	---
30	---	---	---	---	---	---	5800	1120	2370	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	200	100	161	5520	100	472	8160	1000	2810	9400	840	3440

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	440	400	410	7640	3200	5140	13100	6400	8760	15000	6960	9840
2	1600	400	576	7640	3200	4740	---	---	---	14800	7360	10100
3	2720	400	1030	9000	2560	4840	---	---	---	14200	6800	9330
4	---	---	---	11400	2560	5850	---	---	---	14800	6760	9240
5	---	---	---	14000	3600	7630	---	---	---	13600	6960	9520
6	---	---	---	15000	4400	8500	---	---	---	14700	5200	9630
7	5520	1000	2250	16400	4560	8370	---	---	---	11600	4560	6930
8	---	---	---	16200	5600	9200	---	---	---	9400	4360	6340
9	---	---	---	16600	6360	9490	14000	7240	9680	11600	4040	6710
10	---	---	---	16000	6560	9560	16700	7760	11400	10400	4000	6460
11	---	---	---	16000	6760	10200	14600	7600	10400	9600	4000	5890
12	---	---	---	16800	7240	10900	15500	8040	11400	9600	3920	5860
13	3920	1200	2060	15600	7600	10800	17800	8720	13300	9600	4000	6220
14	6040	1400	2960	16200	8000	11100	15600	8560	11700	9520	4440	6770
15	---	---	---	14600	8000	11000	15000	7600	9970	8360	3200	4790
16	---	---	---	14700	7760	10900	18000	7760	11500	9760	3160	5710
17	---	---	---	14400	7520	10300	18000	8200	12500	12000	3800	6890
18	---	---	---	13600	7400	9870	18200	9400	12900	12600	4200	7130
19	---	---	---	14000	6800	9540	17400	8800	11800	13200	3800	6980
20	---	---	---	13600	6800	9160	18200	8560	12100	13400	4560	8010
21	---	---	---	13800	6800	9090	18200	9160	12300	14200	5360	8700
22	8440	2440	4600	13600	6560	8990	17200	8960	12200	12600	3120	6730
23	8000	2400	4050	13800	6560	8950	17000	9360	12100	10200	3400	5810
24	8000	2320	3900	13600	6360	8590	16400	9400	12200	9920	3800	6950
25	8040	2320	4260	12600	6200	8410	15600	9240	11600	10300	3400	6470
26	9800	2600	5140	13100	5920	8500	14600	8200	10800	9400	3200	5640
27	9160	2960	4870	12800	5760	8180	14400	7960	10900	9160	2960	5300
28	8560	2960	4860	13200	5800	8760	14000	7240	9720	---	---	---
29	9120	3200	5180	13000	6000	8590	14000	7520	10000	---	---	---
30	8600	3520	5420	12000	6040	8830	13600	6960	9450	---	---	---
31	---	---	---	13000	6160	9080	14000	6720	9300	---	---	---
MONTH	9800	400	3440	16800	2560	8810	18200	6400	11200	15000	2960	7180

PH (UNITS), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.5	7.3	7.4	7.9	7.7	7.8	7.7	7.5	7.6	7.7	7.3	7.5
2	7.5	7.3	7.4	7.9	7.7	7.8	7.7	7.4	7.5	7.6	7.3	7.5
3	7.5	7.3	7.4	7.9	7.6	7.8	7.6	7.4	7.5	---	---	---
4	7.6	7.3	7.4	7.9	7.7	7.8	7.6	7.4	7.5	---	---	---
5	7.5	7.2	7.4	7.9	7.7	7.8	7.6	7.4	7.5	---	---	---
6	7.5	7.2	7.4	7.9	7.7	7.8	7.6	7.4	7.5	---	---	---
7	7.5	7.3	7.4	7.9	7.7	7.8	7.5	7.3	7.4	---	---	---
8	7.5	7.3	7.4	7.8	7.4	7.6	7.5	7.3	7.4	---	---	---
9	7.6	7.3	7.4	7.6	7.4	7.5	7.5	7.3	7.4	---	---	---
10	7.5	7.3	7.4	7.6	7.4	7.5	7.4	7.2	7.3	---	---	---
11	7.6	7.2	7.4	7.6	7.4	7.5	7.5	7.2	7.3	---	---	---
12	7.6	7.3	7.4	7.5	7.4	7.4	7.5	7.1	7.3	---	---	---
13	7.5	7.3	7.4	7.6	7.4	7.5	7.5	7.1	7.2	---	---	---
14	7.5	7.3	7.4	7.6	7.4	7.5	7.3	7.0	7.2	---	---	---
15	7.5	7.3	7.4	7.5	7.3	7.5	7.4	7.1	7.2	---	---	---
16	7.6	7.3	7.4	7.6	7.4	7.5	7.4	7.1	7.2	---	---	---
17	7.6	7.3	7.4	7.7	7.4	7.5	7.4	7.2	7.3	7.2	6.8	7.0
18	7.6	7.3	7.4	7.6	7.5	7.6	7.5	7.1	7.3	7.2	6.9	7.0
19	7.5	7.3	7.4	7.6	7.5	7.5	7.6	7.2	7.3	---	---	---
20	7.5	7.3	7.4	7.7	7.5	7.6	7.7	7.2	7.4	---	---	---
21	7.5	7.3	7.4	7.7	7.5	7.6	7.7	7.4	7.5	---	---	---
22	7.5	7.3	7.4	7.7	7.5	7.6	7.6	7.3	7.4	---	---	---
23	7.5	7.3	7.4	7.7	7.5	7.6	7.7	7.3	7.5	---	---	---
24	7.7	7.3	7.4	7.7	7.5	7.6	7.7	7.3	7.5	---	---	---
25	7.6	7.4	7.5	7.7	7.6	7.6	7.7	7.3	7.5	---	---	---
26	7.6	7.4	7.5	7.8	7.6	7.7	7.5	7.2	7.4	6.8	6.6	6.7
27	7.4	7.3	7.4	7.7	7.6	7.6	7.5	7.2	7.4	6.6	6.5	6.5
28	---	---	---	---	---	---	7.6	7.2	7.4	6.5	6.5	6.5
29	---	---	---	---	---	---	7.7	7.2	7.5	6.6	6.5	6.5
30	8.0	7.8	7.9	7.8	7.5	7.6	7.7	7.3	7.5	6.7	6.5	6.6
31	7.9	7.8	7.9	---	---	---	7.7	7.3	7.5	6.8	6.6	6.6
MONTH	8.0	7.2	7.4	7.9	7.3	7.6	7.7	7.0	7.4	7.7	6.5	6.8

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

PH (UNITS), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.7	6.5	6.6	---	---	---	---	---	---	7.0	6.7	6.8
2	6.7	6.6	6.6	6.5	6.5	6.5	---	---	---	7.0	6.7	6.8
3	---	---	---	6.6	6.5	6.5	---	---	---	7.0	6.7	6.8
4	---	---	---	6.7	6.5	6.6	---	---	---	7.0	6.7	6.8
5	---	---	---	6.6	6.5	6.5	---	---	---	7.1	6.7	6.8
6	---	---	---	---	---	---	---	---	---	7.2	6.7	6.9
7	---	---	---	6.6	6.4	6.5	---	---	---	7.1	6.8	6.9
8	---	---	---	6.5	6.4	6.4	---	---	---	7.2	6.8	6.9
9	---	---	---	6.5	6.4	6.4	---	---	---	7.1	6.8	7.0
10	---	---	---	6.6	6.4	6.5	---	---	---	7.1	6.8	6.9
11	---	---	---	6.7	6.5	6.6	---	---	---	7.2	6.8	7.0
12	---	---	---	6.8	6.6	6.7	---	---	---	7.2	6.9	7.0
13	---	---	---	6.9	6.6	6.7	---	---	---	7.2	6.9	7.0
14	---	---	---	6.9	6.6	6.7	---	---	---	7.1	6.8	6.9
15	---	---	---	6.8	6.5	6.7	---	---	---	7.1	6.8	7.0
16	---	---	---	6.9	6.5	6.6	---	---	---	7.1	6.8	7.0
17	---	---	---	7.0	6.5	6.6	---	---	---	7.2	6.9	7.0
18	---	---	---	7.1	6.6	6.7	7.1	6.9	7.0	7.2	6.9	7.1
19	---	---	---	7.2	6.6	6.8	7.2	6.9	7.0	7.4	7.0	7.2
20	---	---	---	7.1	6.6	6.8	7.3	6.9	7.1	7.3	7.0	7.2
21	---	---	---	7.2	6.6	6.9	7.3	6.9	7.0	7.3	7.0	7.1
22	---	---	---	7.2	6.7	6.9	7.2	6.9	7.0	7.3	6.9	7.1
23	---	---	---	7.1	6.6	6.8	7.2	6.8	7.0	7.3	7.0	7.1
24	---	---	---	---	---	---	7.1	6.8	6.9	7.2	6.9	7.1
25	---	---	---	---	---	---	7.1	6.8	6.9	7.2	6.8	7.0
26	---	---	---	---	---	---	7.2	6.8	7.0	7.1	6.7	6.9
27	---	---	---	---	---	---	7.2	6.9	7.0	6.9	6.7	6.8
28	---	---	---	---	---	---	7.1	6.8	6.9	---	---	---
29	---	---	---	---	---	---	7.1	6.8	6.9	---	---	---
30	---	---	---	---	---	---	7.1	6.7	6.8	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	6.7	6.5	6.6	7.2	6.4	6.6	7.3	6.7	7.0	7.4	6.7	7.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.5	6.4	6.5	7.3	7.1	7.2	7.3	7.1	7.2	7.4	7.2	7.2
2	6.6	6.4	6.5	7.3	7.0	7.2	---	---	---	7.3	7.2	7.2
3	6.7	6.4	6.5	7.4	7.0	7.2	---	---	---	7.3	7.2	7.2
4	---	---	---	7.5	7.0	7.2	---	---	---	7.3	7.1	7.2
5	---	---	---	7.6	7.1	7.3	---	---	---	7.5	7.1	7.2
6	---	---	---	7.6	7.2	7.4	---	---	---	7.5	7.2	7.3
7	6.9	6.5	6.6	7.6	7.1	7.3	---	---	---	7.2	7.0	7.2
8	---	---	---	7.6	7.1	7.4	---	---	---	7.2	7.0	7.1
9	---	---	---	7.6	7.2	7.3	7.3	7.1	7.2	7.3	7.0	7.1
10	---	---	---	7.6	7.2	7.3	7.4	7.1	7.3	7.2	7.0	7.1
11	---	---	---	7.5	7.2	7.3	7.4	7.1	7.2	7.2	6.9	7.0
12	---	---	---	7.5	7.1	7.3	7.5	7.2	7.3	7.2	6.9	7.0
13	6.9	6.5	6.7	7.5	7.1	7.3	7.5	7.3	7.4	7.2	6.9	7.0
14	7.0	6.6	6.8	7.4	7.1	7.2	7.4	7.3	7.4	7.2	7.0	7.1
15	---	---	---	7.4	7.1	7.2	7.4	7.3	7.3	7.2	7.0	7.1
16	---	---	---	7.4	7.1	7.2	7.6	7.3	7.4	7.3	7.0	7.1
17	---	---	---	7.3	7.1	7.2	7.6	7.3	7.5	7.3	7.0	7.1
18	---	---	---	7.3	7.1	7.2	7.5	7.4	7.5	7.4	7.0	7.2
19	---	---	---	7.3	7.0	7.1	7.5	7.3	7.4	7.4	7.1	7.2
20	---	---	---	7.3	7.0	7.1	7.5	7.3	7.4	7.4	7.1	7.3
21	---	---	---	7.3	7.0	7.1	7.5	7.3	7.3	7.4	7.1	7.3
22	7.2	6.8	7.0	7.3	7.0	7.1	7.4	7.2	7.3	7.4	7.1	7.2
23	7.2	6.8	7.0	7.3	7.0	7.1	7.4	7.2	7.3	7.4	7.1	7.2
24	7.2	6.8	7.0	7.3	7.0	7.1	7.5	7.3	7.4	7.4	7.1	7.3
25	7.2	6.8	7.0	7.2	7.0	7.1	7.4	7.3	7.4	7.3	7.0	7.2
26	7.3	6.9	7.1	7.3	7.0	7.1	7.5	7.3	7.3	7.3	7.0	7.1
27	7.3	6.9	7.1	7.3	7.0	7.1	7.4	7.3	7.3	7.3	6.9	7.1
28	7.3	7.0	7.1	7.3	7.0	7.2	7.4	7.3	7.3	---	---	---
29	7.3	7.0	7.1	7.3	7.1	7.2	7.3	7.2	7.3	---	---	---
30	7.3	7.0	7.2	7.4	7.1	7.2	7.3	7.2	7.2	---	---	---
31	---	---	---	7.4	7.1	7.2	7.4	7.2	7.2	---	---	---
MONTH	7.3	6.4	6.9	7.6	7.0	7.2	7.6	7.1	7.3	7.5	6.9	7.2

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.0	21.0	21.5	16.0	15.0	15.5	10.0	9.0	9.5	6.0	4.5	5.5
2	21.5	21.0	21.0	16.0	15.0	15.5	10.0	9.0	9.5	6.0	5.5	6.0
3	21.5	20.0	21.0	16.0	14.5	15.5	9.5	8.5	9.0	---	---	---
4	20.5	20.0	20.5	15.0	14.5	15.0	11.0	9.0	10.0	---	---	---
5	21.0	20.0	20.5	15.5	14.5	15.0	10.0	9.5	9.5	---	---	---
6	21.5	20.0	20.5	16.0	14.5	15.0	10.5	9.5	10.0	---	---	---
7	20.5	19.0	20.0	15.5	14.5	15.0	10.5	9.5	10.0	---	---	---
8	19.5	18.5	19.0	15.0	14.5	14.5	11.0	10.0	10.5	---	---	---
9	19.0	18.0	18.5	15.5	14.0	14.5	11.5	9.5	10.5	---	---	---
10	19.5	17.5	18.5	15.5	14.0	14.5	10.0	8.5	9.5	---	---	---
11	19.5	18.0	18.5	15.5	14.5	14.5	9.0	8.0	8.5	---	---	---
12	19.5	18.0	18.5	14.5	14.0	14.5	9.0	8.0	8.5	---	---	---
13	20.0	18.5	19.0	14.0	14.0	14.0	9.0	7.5	8.5	---	---	---
14	19.5	18.5	19.0	15.0	14.0	14.5	8.0	6.5	7.5	---	---	---
15	18.5	17.5	18.0	14.5	14.0	14.5	8.0	6.5	7.5	---	---	---
16	18.0	16.5	17.5	14.0	13.5	13.5	8.0	6.0	7.0	---	---	---
17	17.5	16.5	17.0	14.5	13.5	14.0	7.5	6.0	7.0	2.5	2.0	2.0
18	17.0	16.0	16.5	15.0	13.5	14.5	7.0	5.5	6.0	2.0	1.0	2.0
19	17.0	16.5	16.5	14.5	13.5	14.0	6.0	4.5	5.5	---	---	---
20	17.0	16.0	16.5	14.0	12.5	13.5	6.0	5.0	5.5	---	---	---
21	17.0	16.0	16.5	13.5	12.5	13.0	6.5	5.5	6.0	---	---	---
22	17.5	16.0	16.5	12.5	12.0	12.0	6.0	5.0	5.5	---	---	---
23	17.5	16.0	16.5	12.5	12.0	12.0	6.0	5.0	5.5	---	---	---
24	16.5	15.0	16.0	13.0	11.5	12.5	6.0	5.0	5.5	---	---	---
25	16.5	15.0	15.5	12.0	11.0	11.5	6.0	5.0	5.5	---	---	---
26	16.5	15.5	16.0	11.0	10.0	10.5	6.0	4.5	5.5	3.5	2.5	3.0
27	17.0	15.5	16.0	10.0	9.5	9.5	5.5	4.5	5.0	3.5	2.5	3.0
28	17.0	15.5	16.0	---	---	---	5.0	4.0	4.5	3.0	2.5	3.0
29	16.5	15.5	15.5	---	---	---	4.5	3.5	4.0	4.0	3.0	3.0
30	16.0	14.5	15.0	10.0	9.5	9.5	4.5	3.5	4.0	3.5	2.5	3.0
31	16.0	14.5	15.5	---	---	---	4.5	4.0	4.5	3.0	2.0	2.5
MONTH	22.0	14.5	18.0	16.0	9.5	13.5	11.5	3.5	7.5	6.0	1.0	3.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.5	1.5	2.0	---	---	---	---	---	---	15.0	14.0	14.5
2	2.0	1.0	1.5	4.0	3.0	3.5	---	---	---	15.5	14.0	15.0
3	---	---	---	4.5	3.5	4.0	---	---	---	16.0	14.5	15.0
4	---	---	---	5.0	4.0	4.5	---	---	---	16.0	15.0	15.5
5	---	---	---	4.5	4.5	4.5	---	---	---	16.5	15.0	15.5
6	---	---	---	---	---	---	---	---	---	16.5	15.0	16.0
7	---	---	---	5.0	4.5	5.0	---	---	---	17.0	15.5	16.0
8	---	---	---	6.0	4.5	5.5	---	---	---	18.0	16.0	17.0
9	---	---	---	7.0	5.5	6.0	---	---	---	19.0	16.5	18.0
10	---	---	---	7.0	6.0	6.5	---	---	---	19.5	17.5	18.5
11	---	---	---	7.0	6.0	6.5	---	---	---	20.0	18.0	19.0
12	---	---	---	7.0	5.0	6.0	---	---	---	19.5	18.5	19.0
13	---	---	---	7.0	5.5	6.5	---	---	---	20.0	18.5	19.5
14	---	---	---	7.0	6.5	7.0	---	---	---	19.5	19.0	19.5
15	---	---	---	6.5	5.0	6.0	---	---	---	20.0	18.5	19.5
16	---	---	---	6.5	4.5	5.5	---	---	---	20.5	19.0	19.5
17	---	---	---	6.5	5.0	6.0	---	---	---	20.0	18.5	19.5
18	---	---	---	7.0	5.5	6.5	11.0	10.0	10.5	19.5	18.5	19.0
19	---	---	---	7.0	6.0	6.5	11.5	10.0	10.5	19.5	18.5	19.0
20	---	---	---	7.5	6.0	7.0	12.0	10.0	11.0	20.0	18.5	19.0
21	---	---	---	8.5	6.5	7.5	13.0	10.5	11.0	19.5	19.0	19.0
22	---	---	---	9.0	7.0	7.5	12.5	11.0	11.5	20.0	19.0	19.5
23	---	---	---	8.5	7.5	8.0	13.5	11.5	12.0	20.0	19.0	19.5
24	---	---	---	---	---	---	13.0	12.0	12.5	20.5	19.5	20.0
25	---	---	---	---	---	---	14.0	12.5	13.0	21.0	19.5	20.5
26	---	---	---	---	---	---	13.5	12.5	13.0	20.5	19.5	20.0
27	---	---	---	---	---	---	14.0	12.5	13.5	20.0	19.0	19.5
28	---	---	---	---	---	---	14.0	13.0	13.5	---	---	---
29	---	---	---	---	---	---	14.5	13.5	14.0	---	---	---
30	---	---	---	---	---	---	15.0	13.5	14.0	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	2.5	1.0	2.0	9.0	3.0	6.0	15.0	10.0	12.5	21.0	14.0	18.0

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.5	20.0	21.0	24.5	22.5	23.5	29.0	27.5	28.0	27.5	26.0	26.5
2	21.0	20.5	21.0	24.0	23.0	23.5	---	---	---	27.0	26.0	26.5
3	20.5	20.5	20.5	24.5	23.0	23.5	---	---	---	27.5	26.0	26.5
4	---	---	---	23.5	22.5	23.0	---	---	---	27.5	26.0	27.0
5	---	---	---	23.0	22.0	22.5	---	---	---	27.0	24.5	26.5
6	---	---	---	23.0	21.5	22.5	---	---	---	27.0	26.0	26.5
7	22.5	21.0	21.5	23.5	22.0	22.5	---	---	---	27.0	26.0	26.5
8	---	---	---	24.5	22.0	23.0	---	---	---	26.0	24.5	25.5
9	---	---	---	24.0	22.5	23.0	29.0	28.5	28.5	25.5	24.0	25.0
10	---	---	---	23.5	22.5	23.0	29.0	28.0	28.5	25.5	24.5	25.0
11	---	---	---	24.0	22.5	23.5	29.0	26.5	28.0	25.0	24.0	24.5
12	---	---	---	24.5	23.0	24.0	27.0	24.5	26.0	25.0	23.5	24.5
13	22.0	21.5	22.0	25.5	23.5	24.5	25.5	25.0	25.5	24.5	24.0	24.0
14	22.5	21.0	21.5	25.5	24.0	25.0	25.5	24.5	25.0	24.5	24.0	24.5
15	---	---	---	26.0	24.5	25.5	25.0	24.0	24.5	24.5	23.0	24.0
16	---	---	---	27.0	25.0	26.0	24.5	23.5	24.0	24.5	23.0	23.5
17	---	---	---	28.0	25.5	26.5	24.5	23.0	24.0	25.0	23.0	23.5
18	---	---	---	27.5	26.0	26.5	23.5	23.0	23.0	24.0	23.0	23.5
19	---	---	---	27.5	26.0	26.5	24.5	23.0	23.5	23.5	22.5	23.0
20	---	---	---	28.0	26.5	27.0	25.0	23.5	24.0	22.5	21.5	22.0
21	---	---	---	27.0	26.5	26.5	24.0	23.5	23.5	22.0	21.5	22.0
22	23.5	22.5	23.0	27.5	26.0	26.5	24.5	23.0	24.0	22.0	21.5	21.5
23	24.0	22.5	23.0	27.0	26.0	26.5	24.5	23.5	24.0	21.5	20.5	21.0
24	23.0	22.5	23.0	27.5	26.0	27.0	24.5	23.5	24.0	21.0	20.0	20.5
25	23.0	21.5	22.5	28.0	26.5	27.0	25.5	24.0	24.5	21.0	20.0	20.5
26	23.5	21.5	22.5	28.0	27.0	27.5	25.5	24.5	25.0	21.0	20.0	20.5
27	23.0	21.5	22.5	28.0	27.0	27.5	26.0	24.5	25.0	21.0	20.0	20.5
28	23.5	22.0	22.5	28.5	27.0	27.5	26.0	25.0	25.5	---	---	---
29	23.5	22.0	23.0	28.5	27.0	27.5	26.5	25.0	25.5	---	---	---
30	24.0	22.5	23.0	28.0	27.0	27.5	27.0	25.5	26.0	---	---	---
31	---	---	---	28.5	27.0	27.5	27.5	26.0	26.5	---	---	---
MONTH	24.0	20.0	22.0	28.5	21.5	25.5	29.0	23.0	25.5	27.5	20.0	24.0

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.3	7.5	7.7	8.6	8.1	8.4	9.7	9.4	9.6	11.9	11.2	11.5
2	8.0	7.5	7.7	8.6	8.0	8.3	9.7	9.3	9.6	11.7	11.3	11.6
3	8.5	7.6	7.8	8.4	8.0	8.2	9.8	9.4	9.6	---	---	---
4	8.0	7.5	7.8	8.5	8.0	8.3	9.8	9.5	9.6	---	---	---
5	7.8	7.3	7.5	8.5	8.0	8.3	9.7	9.3	9.5	---	---	---
6	7.6	6.9	7.2	8.4	8.0	8.2	9.7	9.2	9.5	---	---	---
7	7.4	7.0	7.2	8.3	7.8	8.1	9.6	9.1	9.3	---	---	---
8	7.7	7.2	7.4	8.5	7.8	8.1	9.5	9.0	9.3	---	---	---
9	7.9	7.4	7.6	8.4	8.0	8.2	9.5	8.9	9.2	---	---	---
10	7.9	7.5	7.7	8.4	7.9	8.1	9.6	8.8	9.3	---	---	---
11	8.0	7.4	7.6	8.4	7.9	8.2	9.8	9.0	9.3	---	---	---
12	8.0	7.6	7.8	8.2	7.8	8.0	10.1	8.6	9.4	---	---	---
13	8.0	7.5	7.7	8.5	8.2	8.3	10.4	9.2	9.8	---	---	---
14	7.9	7.5	7.7	8.5	8.0	8.3	10.6	9.4	10.1	---	---	---
15	8.0	7.5	7.8	8.4	8.0	8.2	10.7	10.0	10.3	---	---	---
16	8.2	7.6	7.9	8.4	8.1	8.3	10.9	10.1	10.5	---	---	---
17	8.4	8.0	8.1	8.7	8.3	8.5	11.4	10.4	10.9	13.0	12.7	12.8
18	8.4	8.0	8.1	8.7	8.5	8.6	11.8	10.8	11.3	13.5	12.6	12.9
19	8.2	7.9	8.1	8.8	8.4	8.6	11.8	11.1	11.4	---	---	---
20	8.3	7.9	8.1	8.9	8.6	8.7	11.6	11.2	11.4	---	---	---
21	8.3	7.9	8.1	9.0	8.6	8.8	11.6	11.4	11.4	---	---	---
22	8.3	7.9	8.1	9.1	8.8	9.0	11.6	11.4	11.5	---	---	---
23	8.3	7.8	8.0	9.3	8.9	9.1	11.6	11.4	11.5	---	---	---
24	8.8	8.0	8.4	9.2	9.0	9.1	11.7	11.3	11.5	---	---	---
25	8.6	8.3	8.5	9.3	9.0	9.2	11.6	11.3	11.5	---	---	---
26	8.5	8.2	8.4	9.6	9.2	9.4	11.6	11.2	11.4	13.0	12.6	12.8
27	8.7	8.2	8.4	9.6	9.4	9.5	11.6	11.1	11.4	12.7	11.6	12.1
28	8.7	8.2	8.4	---	---	---	11.9	11.3	11.7	11.7	11.4	11.5
29	8.7	8.2	8.4	---	---	---	12.1	11.5	11.8	11.8	11.4	11.6
30	8.8	8.3	8.6	9.7	9.4	9.6	12.1	11.6	11.8	11.8	11.5	11.7
31	8.8	8.4	8.5	---	---	---	12.0	11.5	11.7	11.8	11.4	11.6
MONTH	8.8	6.9	8.0	9.7	7.8	8.6	12.1	8.6	10.5	13.5	11.2	12.8

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.0	11.5	11.8	---	---	---	---	---	---	7.6	7.1	7.4
2	12.2	11.7	11.9	10.8	10.5	10.7	---	---	---	7.7	7.0	7.4
3	---	---	---	11.0	10.7	10.8	---	---	---	7.7	7.1	7.3
4	---	---	---	10.9	10.5	10.8	---	---	---	7.4	6.8	7.2
5	---	---	---	10.7	10.6	10.6	---	---	---	8.0	7.0	7.5
6	---	---	---	---	---	---	---	---	---	8.2	7.2	7.6
7	---	---	---	11.1	10.6	10.9	---	---	---	8.1	7.3	7.6
8	---	---	---	10.9	10.2	10.5	---	---	---	8.4	7.3	7.7
9	---	---	---	10.6	10.1	10.3	---	---	---	8.4	7.4	7.8
10	---	---	---	10.5	10.2	10.3	---	---	---	8.6	7.4	7.8
11	---	---	---	11.0	10.2	10.6	---	---	---	8.4	7.4	7.9
12	---	---	---	11.6	10.7	11.1	---	---	---	8.0	7.6	7.8
13	---	---	---	11.7	11.0	11.3	---	---	---	7.8	7.2	7.5
14	---	---	---	11.6	11.0	11.3	---	---	---	7.4	6.8	7.2
15	---	---	---	11.8	11.2	11.5	---	---	---	7.3	6.7	7.0
16	---	---	---	11.7	11.2	11.5	---	---	---	7.4	6.6	7.0
17	---	---	---	11.5	11.2	11.4	---	---	---	7.8	7.0	7.4
18	---	---	---	11.3	11.1	11.2	9.9	9.3	9.6	8.1	7.2	7.7
19	---	---	---	11.3	10.9	11.1	10.0	9.4	9.7	8.2	7.8	8.0
20	---	---	---	11.1	10.8	11.0	10.0	9.3	9.6	8.0	7.5	7.8
21	---	---	---	11.1	10.7	10.9	9.8	9.0	9.4	7.8	7.3	7.6
22	---	---	---	11.2	10.6	10.8	9.6	8.8	9.2	7.8	7.0	7.4
23	---	---	---	10.8	10.4	10.5	9.2	8.4	8.8	7.8	7.0	7.4
24	---	---	---	---	---	---	8.8	8.1	8.4	7.8	6.9	7.4
25	---	---	---	---	---	---	8.8	8.0	8.3	7.5	6.5	7.2
26	---	---	---	---	---	---	9.1	8.0	8.5	7.4	5.8	6.8
27	---	---	---	---	---	---	9.1	8.1	8.5	7.0	6.6	---
28	---	---	---	---	---	---	8.7	7.6	8.1	---	---	---
29	---	---	---	---	---	---	8.3	7.5	7.9	---	---	---
30	---	---	---	---	---	---	8.1	7.2	7.6	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	12.2	11.5	11.9	11.8	10.1	10.9	10.0	7.2	8.7	8.6	5.8	7.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	5.0	4.4	4.7	7.3	6.9	7.1	6.0	5.7	5.8	7.6	6.2	6.5
2	4.9	4.2	4.5	7.2	6.8	7.0	---	---	---	6.8	6.1	6.4
3	4.9	4.4	4.6	7.4	6.8	7.1	---	---	---	6.5	6.0	6.2
4	---	---	---	7.5	6.9	7.2	---	---	---	6.8	5.8	6.0
5	---	---	---	7.6	6.9	7.2	---	---	---	7.6	5.6	6.1
6	---	---	---	7.9	7.1	7.4	---	---	---	7.0	6.1	6.5
7	5.0	4.4	4.8	7.8	6.9	7.3	---	---	---	6.6	5.6	6.0
8	---	---	---	8.0	6.8	7.2	---	---	---	6.3	5.4	5.8
9	---	---	---	7.5	6.8	7.1	6.3	5.4	5.8	6.6	5.7	6.1
10	---	---	---	7.6	6.8	7.1	6.8	5.5	6.0	6.3	5.4	5.8
11	---	---	---	7.4	6.6	7.0	7.3	5.8	6.4	6.0	5.3	5.6
12	---	---	---	7.1	6.3	6.8	8.1	6.5	7.2	6.2	5.4	5.9
13	6.0	5.2	5.7	6.9	6.0	6.5	7.9	7.2	7.5	6.4	5.6	6.0
14	6.0	5.2	5.6	6.6	5.7	6.3	7.7	7.4	7.5	7.0	6.0	6.5
15	---	---	---	6.6	5.6	6.1	7.8	7.3	7.6	7.2	6.2	6.7
16	---	---	---	6.5	5.6	6.0	7.9	6.9	7.5	7.0	6.4	6.7
17	---	---	---	6.3	5.5	5.9	8.0	7.0	7.4	7.0	6.3	6.6
18	---	---	---	6.2	5.4	5.8	7.6	7.1	7.3	6.9	6.2	6.6
19	---	---	---	6.2	5.2	5.7	7.3	6.8	7.0	7.2	6.3	6.7
20	---	---	---	6.0	5.0	5.5	7.6	6.6	6.9	7.4	6.7	7.0
21	---	---	---	5.8	5.1	5.4	7.2	6.6	6.8	7.3	6.9	7.1
22	6.7	6.2	6.5	5.7	4.7	5.2	7.4	6.4	6.7	7.4	6.8	7.1
23	6.7	6.1	6.4	5.6	4.7	5.2	7.4	6.5	6.9	7.7	7.0	7.4
24	6.7	6.1	6.5	5.8	4.9	5.3	7.4	6.8	7.1	7.8	7.2	7.5
25	7.0	6.3	6.7	6.0	5.0	5.4	7.3	6.8	7.0	7.6	6.8	7.2
26	7.1	6.5	6.9	5.7	5.1	5.4	7.6	6.5	6.8	7.0	6.4	6.7
27	7.2	6.8	7.0	5.9	5.2	5.5	7.3	6.4	6.8	6.8	6.3	6.6
28	7.4	6.8	7.1	5.9	5.3	5.6	7.0	6.5	6.6	---	---	---
29	7.3	6.8	7.1	6.1	5.3	5.6	7.0	6.4	6.6	---	---	---
30	7.4	7.0	7.2	6.3	5.5	5.9	7.0	6.3	6.5	---	---	---
31	---	---	---	6.3	5.5	5.9	7.3	6.2	6.5	---	---	---
MONTH	7.4	4.2	6.1	8.0	4.7	6.3	8.1	5.4	6.8	7.8	5.3	6.5

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. These measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. These measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements when correlated with the simultaneous discharge of a nearby stream when continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1979

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements Date	Measurements Discharge (cfs)
		EQUINUNK CREEK BASIN				
01427200	Equinunk Creek at Equinunk, Pa.	Lat 41°51'12", long 75°13'31", Wayne County, at bridge on State Highway 191, 0.3 mile upstream from mouth at Equinunk, Pa.	57.7	1978-79	11-15-78 5-16-79 5-31-79 6-6-79 6-20-79 7-12-79 8-12-79	24 42 246 136 23 10 [1]6.3
		TOMS CREEK BASIN				
01439400	Toms Creek at Egypt Mills near Bushkill, Pa.	Lat 41°07'29", long 74°57'14", Pike County, at bridge on U.S. Highway 209 at Egypt, 0.3 mile upstream from mouth and 3 miles northwest of Bushkill.	3.34	1970-79	5-8-79 9-5-79	15 .98
		SHAWNEE CREEK BASIN				
01440250	Shawnee Creek at Shawnee on Delaware, Pa.	Lat 41°00'42", long 75°06'40", Monroe County, at bridge on State Highway 945 in village of Shawnee on Delaware, 0.6 mile upstream from mouth and 3 miles east of East Stroudsburg.	4.58	1970-79	5-8-79 9-5-79	7.5 .54
		JACOBY CREEK BASIN				
01443100	Jacoby Creek at Portland, Pa.	Lat 40°55'00", long 75°06'19", Northampton County, at county highway bridge, 0.6 mile southwest of Portland and 0.7 mile upstream from mouth.	6.17	1970-79	5-8-79 9-5-79	11 5.0
		MARTINS CREEK BASIN				
01446650	Martins Creek below Little Martins Creek at Martins Creek, Pa.	Lat 40°47'02", long 75°11'08", Northampton County, at bridge on U.S. Highway 611 in village of Martins Creek and 0.9 mile upstream from mouth.	43.4	1932 1970-79	5-8-79 9-5-79	68 20
		LEHIGH RIVER BASIN				
*01452300	East Branch Monocacy Creek near Bath, Pa.	Lat 40°43'10", long 75°22'10", Northampton County, on left bank 25 ft downstream from bridge on L.R. 48063, 1.5 miles southeast of Bath, and 2.5 miles upstream from mouth. Datum of gage is 372.06 ft National Geodetic Vertical Datum of 1929.	5.35	1962-68# 1969-79	10-5-78	2.0

* Also a crest-stage partial-record station.
# Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations during water year 1979--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements Date	Measurements Discharge (cfs)
		TINICUM CREEK BASIN				
*01458900	Tinicum Creek near Ottsville, Pa.	Lat 40°28'14", long 75°08'13", Bucks County, at concrete bridge on gravel road, 0.9 mile below confluence of Rapp Creek and Beaver Creek, 1.5 miles east of Ottsville and 5.3 miles above mouth.	14.7	1971-79	10-5-78 5-8-79	1.4 5.4
		JERICHO CREEK BASIN				
01462300	Jericho Creek at Washington Crossing, Pa.	Lat 40°18'40", long 74°54'23", Bucks County, at bridge on State Highway 32, 0.3 mile upstream from mouth and 2.5 miles northwest of Washington Crossing.	9.52	1971-79	5-6-79	5.0
		SCHUYLKILL RIVER BASIN				
*01467500	Schuylkill River at Pottsville, Pa.	Lat 40°40'53", long 76°11'25", Schuylkill County, at bridge on State Highway 61 at Pottsville and 1.7 miles downstream from Mill Creek.	53.4	1975-77 1979	10-18-78	77
*01467948	West Branch Schuylkill River near Cressona, Pa.	Lat 40°38'30", long 76°11'43", Schuylkill County, at bridge on Gordon-Nagle Trail, 0.75 mile upstream from Panther Creek and 1 mile north at Cressona.	52.5	1975-77 1979	10-18-78	40
*01470190	Little Schuylkill River at Port Clinton, Pa.	Lat 40°35'24", long 76°01'43", Schuylkill County, 0.65 mile upstream from Rattling Run and 0.7 mile north of Port Clinton.	132	1975-77 1979	10-17-78	184
*01470766	Schuylkill River at Temple, Pa.	Lat 40°24'52", long 75°56'23", Berks County, at concrete bridge on State Highway Route 383, 0.7 mile downstream from mouth of Maiden Creek, 0.6 mile west of Temple.	641	1978-79	4-13-78 7-7-78	1080 449
*01470810	Northkill Creek at Bernville, Pa.	Lat 40°26'22", long 76°07'12" Berks County, at bridge on State Highway 183, 0.3 mile upstream from Little Northkill Creek and 0.7 mile northwest of Bernville.	18.8	1975-77 1979	10-13-78	3.9
*01470818	Little Northkill Creek near Bernville, Pa.	Lat 40°26'33", long 76°07'23", Berks County, at bridge on L.R. 06013, 1.5 miles west of Bernville and 1.6 miles upstream from mouth.	21.2	1975-77 1979	10-13-78	5.0
*01471800	Pine Creek near Manatawny, Pa.	Lat 40°24'43", long 75°44'02", Berks County, at steel bridge on macadam road, Lobachsville, 0.5 mile upstream from mouth, 0.5 mile below West Branch Pine Creek and 2 miles north of Manatawny.	15.6	1970-79	10-4-78	2.8
*01472162	Schuylkill River at Phoenixville, Pa.	Lat 40°08'11", long 75°30'41", Chester County, on the downstream end of the left bank wingwall of Reading Railroad bridge across the mouth of French Creek at Phoenixville.	1,280	1979	10-3-78	774
*01473193	Schuylkill River at Port Kennedy, Pa.	Lat 40°06'29", long 75°25'16", Montgomery County, on left bank 200 ft upstream from Betzwood Bridge, and 4.0 mile downstream from Perkiomen Creek at Port Kennedy.	1,691	1979	10-2-78	635
*01473470	Stony Creek at Norristown, Pa.	Lat 40°07'38", long 75°20'43", Montgomery County, on right bank at culvert on Steiger Street in Norristown, 0.1 mile downstream from dam, 0.7 mile downstream from unnamed tributary, and 1.1 miles upstream from mouth.	20.4	1975-79	10-2-78	2.0

* Also a crest-stage partial-record station.

Discharge measurements made at low-flow partial-record stations during water year 1979--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		DARBY CREEK BASIN				
*01475555	Hermesprota Creek at Darby, Pa.	Lat 39°54'02", long 75°16'19". Delaware County, on right bank at pipe arch culvert on Linden Ave. in Darby, and 1.7 miles upstream from mouth.	1.01	1975-79	10-3-78	.35
*01475560	Stony Creek at Prospect Park, Pa.	Lat 39°53'14", long 75°19'00", Delaware County, on left bank at concrete arch culvert and dam on 13th Street in Prospect Park.	2.29	1975-79	10-3-78	.60
*01475600	Muckinipattis Creek at Glenolden, Pa.	Lat 39°53'44", long 75°17'20", Delaware County, on left bank at Glenolden Ave. in Glenolden, 1.5 miles upstream from mouth.	3.50	1975-79	10-3-78	.92
		CRUM CREEK BASIN				
*01475850	Crum Creek near Newtown Square, Pa.	Lat 39°58'35", long 75°26'13", Delaware County, at Castle Rock Bridge on State Highway 3, 0.6 mile upstream from Preston Run, 0.8 mile upstream from Geist Reservoir and 2 miles west of Newtown Square.	15.8	1932 1949 1970-79	10-4-78	11
*01476000	Crum Creek at Woodlyn, Pa.	Lat 39°52'44", long 75°20'58", Delaware County, on right bank at bridge on Bullens Lane.	33.3	1931-37≠ 1975-79	10-3-78	5.2
		RIDLEY CREEK BASIN				
*01476435	Ridley Creek at Dutton Mill, near West Chester, Pa.	Lat 39°58'52", long 75°31'02", Chester County, on left bank at single span highway bridge on Strasburg Road, 0.1 mile west of Dutton Mill and 4.9 miles east of West Chester.	9.70	1975-79	10-4-78 7-18-79	6.9 11
*01476500	Ridley Creek at Moylan, Pa.	Lat 39°54'08", long 75°23'32", Delaware County, on upstream left bank of Manchester Road bridge at intersection with Knowltown Road, at Moylan, and 1 mile south of Media.	31.9	1931-37≠ 1975-79	10-2-78	18
		CHESTER CREEK BASIN				
*01476836	East Branch Chester Creek near West Chester, Pa.	Lat 39°56'09", long 75°32'29", Chester County, at two-span highway bridge on Street Road, 0.4 mile upstream from Goose Run, 1.1 miles northwest of Cheyney and 3.8 miles southeast of the intersection of State Route 100 and U. S. Highway 202.	10.8	1975-79	10-4-78	6.0
*01476853	East Branch Chester Creek at Cheyney, Pa.	Lat 39°55'58", long 75°31'03", Delaware County, at bridge on Station Road, 0.5 mile northeast of Cheyney and 1.5 miles downstream from Goose Run.	22.8	1975-79	10-4-78	18
*01476950	West Branch Chester Creek near Chester Heights, Pa.	Lat 39°52'36", long 75°27'05", Delaware County, at single span bridge on Birney Road (SR 23017) at Aston Mills, Aston Township, 1.2 miles upstream from confluence with East Branch and 1.8 miles southeast of Chester Heights.	18.0	1975-79	10-2-78	16

* Also a crest-stage partial-record station.
≠ Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft^3/s)
		CALKINS CREEK BASIN					
01427650	N. B. Calkins Creek near Damascus, Pa.	Lat 41°42'00", long 75°10'00", at concrete bridge on State Highway 371 at West Damascus, 4.8 miles above Sunny Brook, and 8.0 miles above mouth.	7.02	1962-64 1965-73ø 1974-79	5-26-79	8.31	897
		LACKAWAXEN RIVER BASIN					
*01427950	W. B. Lackawaxen River near Aldenville, Pa.	Lat 41°40'28", long 75°22'35", Wayne County, at bridge on State Highway 247, 0.3 mile downstream from Johnsons Creek and 2.0 miles northwest of Aldenville. Datum of gage is 1,244.60 ft National Geodetic Vertical Datum of 1929.	40.6	1975-79	1-25-79	5.29	1,310
*01429300	Dyberry Creek above Reservoir near Honesdale, Pa.	Lat 41°39'26", long 75°17'12", Wayne County, on right bank, 955 ft downstream from bridge on West Branch Dyberry Creek at Tanners Falls, 0.2 mile downstream from confluence of the east and west branches of Dyberry Creek, and 6 miles north of Dyberry. Datum of gage is 1,023.43 ft National Geodetic Vertical Datum of 1929.	45.8	1975-79	1-25-79	10.24	2,100
01430000	Lackawaxen River near Honesdale, Pa.	Lat 41°35'43", long 75°14'54", at Lemnitzer Bridge in Honesdale, Wayne County, on U. S. Highway 6, and 1.2 miles downstream from Dyberry Creek.	164	1949-69ø 1974-79	3-22-79	5.94	4,160
01431000	Middle Creek near Hawley, Pa.	Lat 41°29'05", long 75°13'20", Wayne County, at bridge on L.R. 63022, 0.1 mile below Red Shale Brook, 2 miles northwest of Hawley, and 2.5 miles above mouth.	78.4	1945-60ø 1961-79	1-25-79	6.13	2,340
01431680	Mill Brook near Paupack, Pa.	Lat 41°23'15", long 75°14'20", Pike County, at culvert on State Highway 507, 400 ft above mouth, 1.8 miles south of Paupack. Datum of gage is 1,183.84 ft National Geodetic Vertical Datum of 1929.	4.84	1960-79	1-25-79	5.63	296
		VANDERMARK CREEK BASIN					
01438300	Vandermark Creek at Milford, Pa.	Lat 41°19'35", long 74°47'50", Pike County, at stone bridge on Broad Street in Milford, and 0.4 mile above mouth. Datum of gage is 490.50 ft National Geodetic Vertical Datum of 1929.	5.36	1962-79	1-25-79	3.02	165

ø Operated as a continuous-record station.
* Also low-flow partial-record station.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		BRODHEAD CREEK BASIN					
01440300	Mill Creek at Mountainhome, Pa.	Lat 41°09'50", long 75°16'00", Monroe County, at stone-arch bridge on macadam road 0.5 mile east of Mountainhome, and 1.5 miles above mouth.	5.84	1961-79	9-6-79	7.82	388
*01440900	McMichael Creek near Stroudsburg, Pa.	Lat 40°58'04", long 75°13'08", Monroe County, at bridge on Dreher Ave. 2 miles southwest of Stroudsburg, 3.2 miles upstream from mouth of Brodhead Creek.	63.9	1975-79	1-25-79	7.99	3,710
*01446600	Martins Creek near East Bangor, Pa.	Lat 40°54'00", long 75°12'08", Northampton County, at stone-arch culvert on Township Road 722, 1.8 miles northwest of East Bangor.	10.4	1961-78≠ 1979	1-2-79 5-25-79	3.20 3.20	340 340
		LEHIGH RIVER BASIN					
*01450455	Buckwha Creek at Little Gap, Pa.	Lat 40°49'21", long 75°32'04", Carbon County, at bridge on L.R. 13035, 0.35 mile upstream from mouth and 0.75 mile south of Little Gap.	42.5	1975-79	1-25-79	8.64	2,990
*01452300	East Branch Monocacy Creek near Bath, Pa.	Lat 40°43'10", long 75°22'10", Northampton County, on left bank 25 ft downstream from bridge on L.R. 40863, 1.5 miles southeast of Bath, and 2.5 miles upstream from mouth. Datum of gage is 372.06 ft National Geodetic Vertical Datum of 1929.	5.35	1962-68≠ 1969-79	1-24-79	6.56	916
01454600	Polk Valley Run near Hellertown, Pa.	Lat 40°34'05", long 75°19'45", Northampton County, at concrete bridge on L.R. 48093, 0.7 mile above mouth, and 1.5 miles southeast of Hellertown.	2.14	1963-79	1-24-79	4.66	412
		TINICUM CREEK BASIN					
*01458900	Tinicum Creek near Ottsville, Pa.	Lat 40°28'14", long 75°08'13", Bucks County, at concrete bridge on gravel road, 0.9 mile below confluence of Rapp Creek, 1.5 miles east of Ottsville, and 5.3 miles above mouth.	14.7	1962-79	1-24-79	6.83	3,460
		POQUESSING CREEK BASIN					
01465780	Poquessing Creek above Byberry Creek at Philadelphia, Pa.	Lat 40°14'10", long 74°58'33", Philadelphia County, on left bank 2,200 ft upstream from Byberry Creek, Philadelphia.	13.2	1965-70≠ 1971-79	5-23-79	7.71	1,770
		PENNYPACK CREEK BASIN					
01467045	Pennypack Creek below Verree Road, Philadelphia, Pa.	Lat 40°05'04", long 75°03'34" Philadelphia County, on left bank 600 ft downstream from Verree Road and 1 mile downstream from Rockledge Branch, Philadelphia.	42.8	1964-70≠ 1971-79	1-21-79	11.40	3,660

* Also low-flow partial-record station.
≠ Operated as a continuous-record station.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		SCHUYLKILL RIVER BASIN					
*01467500	Schuylkill River at Pottsville, Pa.	Lat 40°40'53", long 76°11'25", Schuylkill County, at bridge on State Highway 61 at Pottsville, and 1.7 miles downstream from Mill Creek.	53.4	1975-79	9-6-79	7.99	2,340
*01467948	West Branch Schuylkill River near Cressona, Pa.	Lat 40°38'30", long 76°11'43", Schuylkill County, at bridge on Gordon-Nagle Trial, 0.75 miles upstream from Panther Creek, and 1.0 mile north of Cressona.	52.5	1975-79	1-24-79	5.90	1,930
*01470190	Little Schuylkill River at Port Clinton, Pa.	Lat 40°35'24", long 76°01'43", Schuylkill County, 0.65 mile upstream from Rattling Run and 0.7 mile north of Port Clinton.	132	1975-79	1-24-79	9.86	16,400
*01470748	Sacony Creek near Virginville, Pa.	Lat 40°31'27", long 75°51'29", Berks County, at bridge on L.R. 06135, 1.0 mile upstream from mouth, and 1.0 mile east of Virginville.	54.1	1975-79	1-24-79	11.02	4,200
*01470766	Schuylkill River at Temple, Pa.	Lat 40°24'52", long 75°56'23", Berks County, at concrete bridge on State Highway Route 383, 0.7 mile downstream from mouth of Maiden Creek, 0.6 mile west of Temple.	641	1978-79	1-26-78 1-25-79	17.61 18.58	24,000 29,000
*01470810	Northkill Creek at Bernville, Pa.	Lat 40°26'22", long 76°07'12", Berks County, at bridge on State Highway 183, 0.3 mile upstream from Little Northkill Creek and 0.7 mile northwest of Bernville.	18.8	1975-79	1-24-79	8.26	2,600
*01470818	Little Northkill Creek near Bernville, Pa.	Lat 40°26'33", long 76°07'23", Berks County, at bridge on L.R. 06013, 1.5 miles west of Bernville and 1.6 miles upstream from mouth.	21.2	1975-79	1-24-79	8.33	2,600
*01471800	Pine Creek near Manatawny, Pa.	Lat 40°24'43", long 75°44'02", Berks County, at steel bridge on macadam road, 0.5 mile above mouth, 0.5 mile below West Branch Pine Creek, and 2 miles north of Manatawny.	15.6	1961-79	1-24-79	7.81	671
*01472162	Schuylkill River at Phoenixville, Pa.	Lat 40°08'11", long 75°30'41", Chester County, on the downstream end of the left bank wingwall of Reading Railroad bridge across the mouth of French Creek at Phoenixville.	1,280	1971-79	1-25-79	92.76	52,200
01473100	Zacharias Creek near Skippack, Pa.	Lat 40°12'26", long 75°21'57", Montgomery County, at concrete weir 1.2 miles above mouth, and 2.2 miles southeast of Skippack.	7.27	1960-79	9-6-79	8.90	3,400
*01473193	Schuylkill River at Port Kennedy, Pa.	Lat 40°06'29", long 75°25'16", Montgomery County, on left bank 200 ft upstream from Betzwood Bridge, and 4.0 miles downstream from Perkiomen Creek at Port Kennedy.	1,691	1977-79	1-25-79	75.64	65,500

* Also low-flow partial-record station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
*01473470	Stony Creek at Norristown, Pa.	Lat 40°07'38", long 75°20'43", Montgomery County, on right bank at culvert on Steiger Street in Norristown, 0.1 mile downstream from dam, 0.7 mile downstream from unnamed tributary, and 1.1 miles upstream from mouth.	20.4	1975-79	9-6-79	9.25	/
01473880	Pine Run tributary at Fort Washington, Pa.	Lat 40°08'13", long 75°11'21", Montgomery County, at corrugated half-round culvert on Delaware Road in Fort Washington Industrial Park at Fort Washington, and 300 ft above mouth.	2.01	1962-79	1-25-79	/	415
01473900	Wissahickon Creek at Fort Washington, Pa.	Lat 40°07'26", long 75°13'13", Montgomery County, on concrete bridge on State Highway 73, 0.5 mile downstream from Sandy Run, and 1 mile south of Fort Washington.	40.8	1961-68≠ 1969-79	1-25-79	12.50	4,400
01473980	Wissahickon Creek at Livezey Lane Philadelphia, Pa.	Lat 40°02'59", long 75°12'52", Phildelphia County, on left bank 300 ft upstream from Green Valley Boat Club, 500 ft downstream from Creshiem Creek in Philadelphia.	59.2	1965-70≠ 1971-79	1-25-79	5.75	4,460
		DARBY CREEK BASIN					
*01475555	Hermesprota Creek at Darby, Pa.	Lat 39°54'02", long 75°16'19", Delaware County, on right bank at culvert on Linden Avenue in Darby, 1.7 miles upstream from mouth.	1.01	1975-79	9-6-79	/	/
*01475560	Stony Creek at Prospect Park, Pa.	Lat 39°53'14", long 75°19'00", Delaware County, on left bank at culvert and dam on 13th Street in Prospect Park.	2.29	1975-79	9-6-79	12.67	/
*01475600	Muckinipattis Creek at Glenolden, Pa.	Lat 39°53'44", long 75°17'20", Delaware County, on left bank at Glenolden Avenue in Glenolden, 1.5 miles upstream from mouth.	3.50	1975-79	9-6-79	7.64	/
		CRUM CREEK BASIN					
*01475850	Crum Creek near Newtown Square, Pa.	Lat 39°58'35", long 75°26'13", Delaware County, at Castle Rock Bridge on State Highway 3, 0.6 mile upstream from Preston Run, 0.8 mile upstream from Geist Reservoir, and 2 miles west of Newtown Square.	15.8	1977-79	3-22-77 1-26-78 9-6-79	3.92 6.03 5.91	876a. 1,520a. 1,480
*01476000	Crum Creek at Woodlyn, Pa.	Lat 39°52'44", long 75°20'58", Delaware County, on right bank at bridge on Bullens Lane in Woodlyn.	33.3	1931-37≠ 1975-79	9-6-79	7.02	1,770
		RIDLEY CREEK BASIN					
*01476435	Ridley Creek at Dutton Mill near West Chester, Pa.	Lat 39°58'52", long 75°31'02", Chester County, on left bank at Strasburg Road, 0.1 mile west of Dutton Mill and 4.9 miles east of West Chester.	9.70	1975-79	9-6-79	5.32	731
*01476500	Ridley Creek at Moylan, Pa.	Lat 39°54'08", long 75°23'32", Delaware County, on upstream left bank of Manchester Road bridge intersection with Knowltown Road, at Moylan, and 1.0 mile south of Media.	31.9	1978-79	9-30-79	6.50	/

* Also low-flow partial-record station.
/ Not determined.
≠ Operated as a continuous-record station.
a. Not previously published.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations--Continued

					Annual maximum		
Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Date	Gage height (feet)	Discharge (ft^3/s)
		CHESTER CREEK BASIN					
*01476836	East Branch Chester Creek near West Chester, Pa.	Lat 39°56'09", long 75°32'29", Chester County, at bridge on Street Road, 0.4 mile upstream from Goose Run, 1.1 miles northwest of Cheyney, and 3.8 miles east of the intersection of Pa. Route 100, and U. S. Highway 202 in West Chester.	10.8	1975-79	9-6-79	7.42	938
*01476853	East Branch Chester Creek at Cheyney, Pa.	Lat 39°55'58", long 75°31'03", Delaware County, at bridge on Station Road, 0.5 mile northeast of Cheyney and 1.5 miles downstream from Goose Run.	22.8	1975-79	9-30-79	11.41	1,650
*01476950	West Branch Chester Creek near Chester Heights, Pa.	Lat 39°52'36", long 75°27'05", Delaware County, at bridge on Birney Road at Aston Mills, 1.2 miles upstream from confluence with East Branch, and 1.8 miles southeast of Chester Heights.	18.0	1975-79	9-30-79	9.12	4,130
		CHRISTINA CREEK BASIN					
01478200	Middle Branch White Clay Creek near Landenberg, Pa.	Lat 39°46'54", long 75°48'03", Chester County, at bridge on L.R. 15017, 1.4 miles above mouth, and 1.7 miles west of Landenberg.	12.7	1960-79	9-6-79	10.59	2,630
		BRANDYWINE CREEK BASIN					
01480610	Sucker Run near Coatesville, Pa.	Lat 39°58'20", long 75°51'03", Chester County, at concrete bridge on South Park Avenue at State Highway 372, 1.6 miles above mouth, and 2 miles west of Coatesville.	2.57	1964-79	6-13-75	4.32	172a.
					7-11-76	4.72	256a.
					9-1-77	4.09	129a.
					6-27-78	6.50	751a.
					7-21-79	8.49	1,480

* Also low-flow partial-record station.

a. Not previously published.

Discharge measurements made at miscellaneous sites during water year 1979

					Measurements	
Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Date	Discharge (ft^3/s)
		SHOHOLA CREEK BASIN				
Shohola Creek	Delaware River	Lat 41°27'20", long 74°55'25", Pike County, 1.4 miles above mouth and 1.4 miles south of Shohola.	83.6	1920-28≠ 1957 1959-67 1969-78	6-21-79 7-16-79 8-21-79	60 25 30
		LEHIGH RIVER BASIN				
Lehigh River	Delaware River	Lat 40°36'23", long 75°27'17", Lehigh County, on upstream side of Hamilton Street bridge, at Allentown, 200 ft downstream from lock and dam, and 0.7 mile upstream from Little Lehigh Creek.	1,033	1977-78	10-6-78 1-25-79	1,230 19,400
		NESHAMINY CREEK BASIN				
Little Neshaminy Creek	Neshaminy Creek	Lat 40°13'28", long 75°07'53", on downstream side of center right bridge pier of bridge on Rte. 132 (Street Road), 0.5 mile southeast of Neshaminy and 0.3 mile northwest of Warminster Township.	25.5	-	10-19-78 11-7-78 4-20-79 6-2-79 7-3-79	3.5 2.4 22 32 12
Little Neshaminy Creek Tributary at Warminster, Pa.	Little Neshaminy Creek	Lat 40°13'44", long 75°06'38", on upstream left bank wingwall of bridge on Log College Drive at intersection with Gorson Drive, 0.1 mile upstream from confluence with Little Neshaminy Creek.	1.50	-	10-19-78 11-7-78 4-23-79 7-5-79	.11 .02 .99 .69
Little Neshaminy Creek at Hartsville, Pa.	Neshaminy Creek	Lat 40°14'06", long 75°05'31", on downstream left bank wingwall of bridge on Old York Road, 0.5 mile north of Hartsville.	30.2	-	10-19-78 11-8-78 4-20-79 6-1-79 7-3-79	13 4.5 37 51 22
Little Neshaminy Creek Tributary at Traymore, Pa.	Little Neshaminy Creek	Lat 40°14'00", long 75°04'19", on upstream right bank wingwall of Bucks County Bridge No. 138 on Creek Road, 0.4 mile northwest of Traymore, 0.1 mile upstream from confluence with Little Neshaminy Creek.	4.34	-	10-18-78 11-8-78 4-23-79 7-3-79 7-5-79 9-6-79	.25 .30 3.8 3.9 3.6 68
Little Neshaminy Creek Tributary at Jacksonville, Pa.	Little Neshaminy Creek	Lat 40°14'12", long 75°03'34", on downstream right bank wingwall of bridge on Mearns Road at intersection with Almshouse Road, 0.6 mile northeast of Traymore and 0.7 mile northwest of Jacksonville, and 0.2 mile upstream from confluence with Little Neshaminy Creek	2.77	-	10-18-78 11-8-78 4-23-79 9-6-79	.48 .30 4.0 81
		PENNYPACK CREEK BASIN				
Southampton Creek at Davisville, Pa.	Pennypack Creek	Lat 40°11'03", long 75°03'36", on downstream left bank wingwall of bridge at entrance to shopping center at the intersection of Davisville Road and Rte. 132 (Street Road), at Davisville.	1.12	-	10-18-78 11-8-78 4-24-79 7-6-79	.40 .26 1.2 .77
Southampton Creek Tributary at County Line Road	Southampton Creek	Lat 40°10'27", long 75°04'36", on upstream left bank wingwall of bridge on County Line Road, 1.1 miles southeast of Lacey Park, and 1.0 mile upstream from confluence with Southampton Creek.	.90	-	10-17-78 11-9-78 4-23-79 7-6-79 9-6-79	.03 .06 .61 .29 3.2
Pennypack Creek Tributary at Bonair, Pa.	Pennypack Creek	Lat 40°11'13", long 75°05'54", on upstream left bank wingwall of bridge on County Line Road, at Bonair.	1.18	-	10-17-78 11-9-78 4-19-79 4-23-79 7-6-79 9-6-79	.49 .61 1.5 1.2 .83 8.0
Pennypack Creek Tributary at Warminster Village, Pa.	Pennypack Creek	Lat 40°11'42", long 75°06'42", on upstream left bank wingwall of bridge on County Line Road, 0.8 mile southwest of Warminster Village, and 0.3 mile upstream from confluence with West Branch Pennypack Creek Tributary.	.92	-	10-17-78 11-9-78 4-19-79	.12 .05 .45

≠ Operated as a continuous-record station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1979--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		SCHUYLKILL RIVER BASIN				
Tulpehocken Creek Tributary	Tulpehocken Creek	Lat 40°25'36", long 76°10'01", Berks County, 0.65 mile upstream from mouth and 2.3 mile northwest of Host.		1970-78	11-30-78 4-2-79	.31 1.1
Pigeon Creek	Schuylkill River	Lat 40°12'03", long 75°32'10", Chester County, at bridge on Ellis Woods Road, 1.8 miles west of Parker Ford and 3.0 miles upstream from mouth.	12.0	1970-76 1978	10-4-78 7-2-79	5.9 11
Stony Run	Schuylkill River	Lat 40°10'01", long 75°32'57", Chester County, on downstream side of Pikeland Avenue bridge, 0.3 mile south of Spring City, and about 2.2 miles upstream from mouth.	4.07	1971-73 1975-76 1978	10-4-78 7-5-79	.79 2.2
Pigeon Run	Pickering Creek	Lat 40°05'37", long 75°34'54", Chester County, at concrete bridge on Pikeland Road (map shows Church Road) 0.7 mile south of Merlin and 3.5 miles west of Phoenixville.	28.5	1967-68 1975 1978	10-3-78	1.6
Pickering Creek	Schuylkill River	Lat 40°06'33", long 75°31'42", Chester County, at steel and timber bridge on Creek Road at State Highway 29, 0.3 mile downstream from Pennsylvania Railroad Bridge, 1 mile south of Phoenixville, and 2.6 miles upstream from Pickering Creek Reservoir.	31.4	1967-68 1975 1978	10-3-78 7-5-79	15 40
Valley Creek	Schuylkill River	Lat 40°04'53", long 75°27'25", Chester County, at bridge on Wilson Road, 1 mile south of Valley Forge, 1.8 miles upstream from mouth, and 5 miles west of Norristown.	22.0	1972-73 1975 1977-78	10-10-78 4-18-79 6-28-79	22 43 30
Valley Creek	Schuylkill River	Lat 40°03'32", long 75°31'51", Chester County, 25 feet downstream from Rte. 29 bridge, 1.9 miles northwest of Malvern and 6.8 miles upstream from mouth.	-	-	4-18-79	12
Valley Creek	Schuylkill River	Lat 40°03'58", long 75°29'24", Chester County, 50 feet downstream from North Valley Road bridge, 1.7 miles north of Paoli and 4.2 miles upstream from mouth.	-	-	4-18-79	24
Little Valley Creek Tributary	Little Valley Creek	Lat 40°03'34", long 75°28'13", Chester County, 20 feet downstream from culvert under Rte. 202, in Howellville, 1.3 miles north of Paoli and 0.5 mile upstream from confluence with Little Valley Creek.	-	-	4-18-79	3.6
		CHESTER CREEK BASIN				
Chester Creek	Delaware River	Lat 39°53'38", long 75°26'00", Delaware County, at bridge on Rte. 452 at Glen Riddle, 0.8 mile downstream from West Branch Chester Creek.	-	1978	10-2-78 11-28-78	44 52
		ELK RIVER BASIN				
Big Elk Creek	Elk River	Lat 39°44'08", long 75°52'53", Chester County, at Fergusons Bridge (No. 35) on State Highway 841, 0.9 mile north of Lewisville.	31.2	1976-78	10-2-78 9-25-79	17 43

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1979--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
Little Elk Creek	Elk River	Lat 39°43'13", long 75°53'50", Cecil County, Maryland at single span highway bridge on Lewisville, Pa. - Blake, Md. road, 1.2 miles west of Lewisville, Pa. and 2.2 miles northwest of Providence, Md.	13.4	1976-78	10-2-78	5.3
					9-25-79	12
		LAKE WALLENPAUPACK BASIN				
West Branch Wallenpaupack Creek	Lake Wallenpaupack	Lat 41°21'50", long 75°22'27", Wayne County, at bridge on L.R. 63066, 0.5 mile northeast off Rte. 191, 1.8 miles northeast of Sterling.	-	-	8-17-78	14
					9-28-78	12
					2-25-79	521
					3-7-79	482
					4-24-79	77
					5-3-79	124
					5-16-79	55
					5-31-79	134
					9-19-79	10
Ariel Creek	Lake Wallenpaupack	Lat 41°23'04", long 75°19'22", Wayne County, at private bridge just off L.R. 63008, 0.7 mile northeast of Ledgedale.	-	-	8-16-78	6.4
					9-28-78	1.6
					1-22-79	77
					3-6-79	178
					4-24-79	15
					5-3-79	11
					5-16-79	11
					5-31-79	39
					9-19-79	67
Mill Brook	Lake Wallenpaupack	Lat 41°23'15", long 75°14'20", Pike County, at concrete box culvert on State Highway 507, 350 feet north of road to Bear Trap Mountain, 400 feet upstream from mouth, 1.8 miles south of Paupack.	4.84	1959-62	8-10-78	3.0
				1964	9-28-78	1.8
				1968-69	9-29-78	1.5
				1971-74	11-8-78	1.6
				1976	1-22-79	19
					3-7-79	34
					4-24-79	7.2
					4-30-79	14
					5-16-79	8.0
					5-31-79	15
					9-19-79	1.7
Wallenpaupack Creek	Lake Wallenpaupack	Lat 41°20'09", long 75°20'26", Pike County, at bridge on Township Rte. 328, 0.4 mile northeast off Rte. 191, 0.7 mile north of East Sterling.	-	-	8-15-78	22
					9-28-78	17
					1-22-79	401
					3-7-79	651
					4-24-79	144
					5-3-79	281
					5-16-79	148
					5-31-79	348
					9-19-79	83
Purdy Creek	Lake Wallenpaupack	Lat 41°25'40", long 75°16'09", Wayne County, at bridge on L.R. 63009, 0.8 mile southeast of Lakeville.	-	-	8-17-78	1.4
					9-28-78	1.0
					1-22-79	35
					3-6-79	113
					4-24-79	12
					5-3-79	12
					5-16-79	8.2
					5-31-79	26
					9-19-79	.64

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

Water-quality partial-record stations are particular sites where chemical-quality, biological and or sediment data are collected systematically over a period of years for use in hydrologic analyses. The data are collected usually less than quarterly.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

01464575 - DEL R (AT PA TPK BDG) AT EDGELY PA (LAT 40 07 04 LONG 074 49 58)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)
APR , 1979 28...	1630	149	7.5	15.5	13	58	22	15	4.9	8.3	1.4	41

01464575 - DEL R (AT PA TPK BDG) AT EDGELY PA (LAT 40 07 04 LONG 074 49 58)

DATE	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)
APR , 1979 28...	0	34	2.1	22	11	99	2.2	.05	2.2	.3	.26	77

01464575 - DEL R (AT PA TPK BDG) AT EDGELY PA (LAT 40 07 04 LONG 074 49 58)

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN,TOT IN BOT-TOM MA-TERIAL (MG/KG AS N)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO. TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
APR , 1979 28...	.22	.48	4100	2.7	4100	.31	.04	950	1	<10	50

01464575 - DEL R (AT PA TPK BDG) AT EDGELY PA (LAT 40 07 04 LONG 074 49 58)

DATE	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)
APR , 1979 28...	10	90	39000	150	670	.08	0	720	4.0	29	2.8

01464575 - DEL R (AT PA TPK BDG) AT EDGELY PA (LAT 40 07 04 LONG 074 49 58)

DATE	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
APR , 1979 28...	120	.0	31	28	39	3.0	.0	.0	.0	.0	0

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
SCHUYLKILL RIVER BASIN										
01472054 - PIGEON CREEK NEAR BUCKTOWN, PA. (LAT 40 11 50 LONG 075 40 10)										
OCT , 1978										
31...	1530	130	6.0	12.5	10.0	36	13	9.3	3.1	5.5
01472065 - PIGEON CREEK NEAR PORTERS MILL, PA. (LAT 40 11 27 LONG 075 38 10)										
OCT , 1978										
31...	1445	160	6.9	13.0	10.9	44	16	12	3.5	6.5
01472080 - PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03 LONG 075 37 10)										
OCT , 1978										
31...	1400	255	6.9	13.0	11.0	55	22	14	4.0	7.6
01472109 - STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11 LONG 075 34 45)										
OCT , 1978										
31...	1115	400	7.0	12.5	12.8	81	28	21	6.9	21
01472110 - STONY RUN AT SPRING CITY, PA. (LAT 40 10 01 LONG 075 32 57)										
OCT , 1978										
31...	1215	310	7.3	12.0	12.6	79	36	20	7.1	14
01472126 - FRENCH CREEK NEAR TRYTHALL, PA. (LAT 40 12 00 LONG 075 45 53)										
NOV , 1978										
01...	1500	85	6.9	--	11.6	24	4	6.4	2.0	4.3
01472129 - FRENCH CREEK NEAR KNAUERTOWN, PA. (LAT 40 11 09 LONG 075 45 28)										
NOV , 1978										
01...	1400	95	7.0	10.5	13.2	--	--	--	--	--
01472138 - FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14 LONG 075 41 50)										
NOV , 1978										
01...	1115	180	7.2	9.5	10.6	53	17	13	4.9	5.5
01472140 - S BR FRENCH CR AT COVENTRYVILLE, PA. (LAT 40 09 10 LONG 075 42 52)										
NOV , 1978										
01...	1215	180	7.0	9.5	13.8	65	29	17	5.4	7.0
01472154 - FRENCH CREEK NEAR PUGHTOWN, PA. (LAT 40 09 14 LONG 075 38 25)										
NOV , 1978										
01...	1000	200	7.2	9.5	9.0	55	19	14	4.8	6.0

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SCHUYLKILL RIVER BASIN--Continued

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
01472054 - PIGEON CREEK NEAR BUCKTOWN, PA. (LAT 40 11 50 LONG 075 40 10)										
OCT , 1978 31...	1.2	28	0	23	7.1	17	4.8	.0	14	60
01472065 - PIGEON CREEK NEAR PORTERS MILL, PA. (LAT 40 11 27 LONG 075 38 10)										
OCT , 1978 31...	1.6	34	0	28	6.8	16	6.0	.0	13	86
01472080 - PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03 LONG 075 37 10)										
OCT , 1978 31...	2.1	40	0	33	8.1	20	7.7	.0	15	106
01472109 - STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11 LONG 075 34 45)										
OCT , 1978 31...	3.1	65	0	53	10	26	28	.0	17	184
01472110 - STONY RUN AT SPRING CITY, PA. (LAT 40 10 01 LONG 075 32 57)										
OCT , 1978 31...	3.2	53	0	43	4.3	25	19	.1	16	138
01472126 - FRENCH CREEK NEAR TRYTHALL, PA. (LAT 40 12 00 LONG 075 45 53)										
NOV , 1978 01...	1.5	25	0	21	5.0	6.5	4.2	.1	9.1	56
01472129 - FRENCH CREEK NEAR KNAUERTOWN, PA. (LAT 40 11 09 LONG 075 45 28)										
NOV , 1978 01...	--	17	0	14	2.7	8.1	4.0	.1	12	52
01472138 - FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14 LONG 075 41 58)										
NOV , 1978 01...	1.7	44	0	36	4.4	11	8.0	.1	15	87
01472148 - S BR FRENCH CR AT COVENTRYVILLE, PA. (LAT 40 09 18 LONG 075 42 52)										
NOV , 1978 01...	2.4	43	0	35	6.9	14	11	.1	18	113
01472154 - FRENCH CREEK NEAR PUGHTOWN, PA. (LAT 40 09 14 LONG 075 38 25)										
NOV , 1978 01...	2.1	44	0	36	4.4	15	9.6	.1	16	96

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)
SCHUYLKILL RIVER BASIN--Continued										
01472056 - PIGEON CREEK NEAR BUCKTOWN, PA. (LAT 40 11 50 LONG 075 40 10)										
OCT , 1978 31...	69	1.6	.01	1.6	.07	.22	.29	1.9	.020	.01
01472065 - PIGEON CREEK NEAR PORTERS MILL, PA. (LAT 40 11 27 LONG 075 38 10)										
OCT , 1978 31...	76	1.1	.01	1.1	.07	.31	.38	1.5	.020	.01
01472080 - PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03 LONG 075 37 10)										
OCT , 1978 31...	91	1.8	.01	1.8	.17	.27	.44	2.2	.030	.03
01472109 - STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11 LONG 075 34 45)										
OCT , 1978 31...	155	4.5	.02	4.5	.04	.31	.35	4.9	.490	.49
01472110 - STONY RUN AT SPRING CITY, PA. (LAT 40 10 01 LONG 075 32 57)										
OCT , 1978 31...	131	4.0	.01	4.0	.02	.23	.25	4.3	.210	.18
01472126 - FRENCH CREEK NEAR TRYTHALL, PA. (LAT 40 12 00 LONG 075 45 53)										
NOV , 1978 01...	47	.09	.00	.09	.03	.19	.22	.31	.010	.00
01472129 - FRENCH CREEK NEAR KNAUERTOWN, PA. (LAT 40 11 09 LONG 075 45 28)										
NOV , 1978 01...	--	.09	.00	.09	.01	.47	.48	.57	.010	.02
01472138 - FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14 LONG 075 41 50)										
NOV , 1978 01...	81	.57	.01	.58	.01	.29	.30	.88	.010	.01
01472140 - S BR FRENCH CR AT COVENTRYVILLE, PA. (LAT 40 09 18 LONG 075 42 52)										
NOV , 1978 01...	97	2.9	.01	2.9	.01	.32	.33	3.2	.010	.01
01472154 - FRENCH CREEK NEAR PUGHTOWN, PA. (LAT 40 09 14 LONG 075 38 25)										
NOV , 1978 01...	98	1.4	.01	1.4	.10	.45	.55	2.0	.010	.01

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
SCHUYLKILL RIVER BASIN--Continued										
01472054 - PIGEON CREEK NEAR BUCKTOWN, PA. (LAT 40 11 50 LONG 075 40 10)										
OCT . 1978 31...	0	0	0	1	140	3	40	3	10	.00
01472065 - PIGEON CREEK NEAR PORTERS MILL, PA. (LAT 40 11 27 LONG 075 38 10)										
OCT . 1978 31...	4	0	4	0	110	9	40	1	10	.00
01472080 - PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03 LONG 075 37 10)										
OCT . 1978 31...	0	0	0	0	110	3	50	0	0	.00
01472109 - STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11 LONG 075 34 45)										
OCT . 1978 31...	0	0	0	1	110	0	30	1	0	.00
01472110 - STONY RUN AT SPRING CITY, PA. (LAT 40 10 01 LONG 075 32 57)										
OCT . 1978 31...	0	0	0	2	190	1	40	2	0	.00
01472126 - FRENCH CREEK NEAR TRYTHALL, PA. (LAT 40 12 00 LONG 075 45 53)										
NOV . 1978 01...	1	0	0	4	290	8	80	1	30	.00
01472129 - FRENCH CREEK NEAR KNAURERTOWN, PA. (LAT 40 11 09 LONG 075 45 28)										
NOV . 1978 01...	--	--	--	--	--	--	--	--	--	.00
01472138 - FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14 LONG 075 41 50)										
NOV . 1978 01...	0	0	0	0	120	3	40	0	10	.00
01472140 - S BR FRENCH CR AT COVENTRYVILLE, PA. (LAT 40 09 18 LONG 075 42 52)										
NOV . 1978 01...	1	0	0	1	70	1	40	0	0	.00
01472154 - FRENCH CREEK NEAR PUGHTOWN, PA. (LAT 40 09 14 LONG 075 38 25)										
NOV . 1978 01...	1	0	0	1	130	5	40	1	10	.00

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SCHUYLKILL RIVER BASIN--Continued

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
01472161 - FRENCH CREEK AT PHOENIXVILLE, PA. (LAT 40 08 07 LONG 075 31 05)										
OCT , 1978 31...	0945	490	7.4	14.0	12.0	130	69	34	10	18
01472170 - PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43 LONG 075 39 14)										
OCT , 1978 30...	1245	280	7.2	11.0	12.0	71	34	19	5.8	6.5
01472185 - PICKERING CREEK TRIB NR KIMBERTON, PA. (LAT 40 06 49 LONG 075 36 18)										
OCT , 1978 30...	1500	245	7.2	10.0	11.2	73	30	20	5.6	6.9
01472188 - PICKERING CREEK AT CHARLESTOWN, PA. (LAT 40 06 05 LONG 075 34 17)										
OCT , 1978 30...	1530	270	7.3	10.0	12.8	77	33	21	6.0	7.0
01472191 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33 LONG 075 31 42)										
OCT , 1978 30...	1400	270	7.5	10.0	13.0	79	34	21	6.5	7.5

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
01472161 - FRENCH CREEK AT PHOENIXVILLE, PA. (LAT 40 08 07 LONG 075 31 05)										
OCT , 1978 31...	3.3	70	0	57	4.5	54	24	.5	13	198
01472170 - PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43 LONG 075 39 14)										
OCT , 1978 30...	2.3	46	0	38	4.6	14	20	.1	19	128
01472185 - PICKERING CREEK TRIB NR KIMBERTON, PA. (LAT 40 06 49 LONG 075 36 18)										
OCT , 1978 30...	2.2	52	0	43	5.2	15	16	.1	18	117
01472188 - PICKERING CREEK AT CHARLESTOWN, PA. (LAT 40 06 05 LONG 075 34 17)										
OCT , 1978 30...	2.3	54	0	44	4.3	16	20	.1	18	127
01472191 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33 LONG 075 31 42)										
OCT , 1978 30...	2.4	51	0	42	2.6	17	16	.1	17	121

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)
SCHUYLKILL RIVER BASIN--Continued										
01472161 - FRENCH CREEK AT PHOENIXVILLE, PA. (LAT 40 08 07 LONG 075 31 05)										
OCT , 1978 31...	192	1.7	.06	1.8	.04	.28	.32	2.1	.080	.07
01472170 - PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43 LONG 075 39 14)										
OCT , 1978 30...	110	1.8	.01	1.8	.06	.17	.23	2.0	.030	.02
01472185 - PICKERING CREEK TRIB NR KIMBERTON, PA. (LAT 40 06 49 LONG 075 36 18)										
OCT , 1978 30...	110	1.2	.01	1.2	.04	.13	.17	1.4	.010	.00
01472188 - PICKERING CREEK AT CHARLESTOWN, PA. (LAT 40 06 05 LONG 075 34 17)										
OCT , 1978 30...	117	1.1	.01	1.1	.01	.28	.29	1.4	.020	.01
01472191 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33 LONG 075 31 42)										
OCT , 1978 30...	113	1.7	.01	1.7	.03	.25	.28	2.0	.010	.01

DATE	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, DISSOLVED (UG/L AS ZN)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
01472161 - FRENCH CREEK AT PHOENIXVILLE, PA. (LAT 40 08 07 LONG 075 31 05)										
OCT , 1978 31...	1	3	0	3	140	110	70	3	100	.10
01472170 - PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43 LONG 075 39 14)										
OCT , 1978 30...	0	0	0	1	260	3	30	0	10	.00
01472185 - PICKERING CREEK TRIB NR KIMBERTON, PA. (LAT 40 06 49 LONG 075 36 18)										
OCT , 1978 30...	1	0	0	1	170	2	20	1	0	.00
01472188 - PICKERING CREEK AT CHARLESTOWN, PA. (LAT 40 06 05 LONG 075 34 17)										
OCT , 1978 30...	0	0	0	1	150	1	10	0	10	.00
01472191 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33 LONG 075 31 42)										
OCT , 1978 30...	0	0	0	0	90	0	10	0	0	.10

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
SCHUYLKILL RIVER BASIN--Continued										
01473167 - LITTLE VALLEY CR NR VALLEY FORGE, PA. (LAT 40 03 51 LONG 075 28 22)										
OCT , 1978										
27...	1345	750	8.0	12.0	11.0	240	47	45	32	21
01473168 - VALLEY CREEK NR VALLEY FORGE, PA. (LAT 40 04 08 LONG 075 28 25)										
OCT , 1978										
27...	1300	520	6.4	13.0	12.6	190	62	51	16	29
01475830 - EAST BRANCH CRUM CREEK NEAR PAOLI, PA. (LAT 40 00 28 LONG 075 27 55)										
OCT , 1978										
27...	1045	200	7.2	12.0	10.6	78	22	16	9.2	8.4
01475840 - WEST BRANCH CRUM CREEK NEAR PAOLI, PA. (LAT 39 59 52 LONG 075 27 38)										
OCT , 1978										
27...	1000	200	7.4	11.5	10.2	67	19	14	7.8	7.4
01476430 - RIDLEY CREEK NEAR GOSHENVILLE, PA. (LAT 39 59 26 LONG 075 32 38)										
OCT , 1978										
24...	1300	125	7.1	11.0	10.6	54	19	11	6.4	8.8
01476435 - RIDLEY CREEK NEAR DUTTON MILL, PA. (LAT 39 58 50 LONG 075 31 00)										
OCT , 1978										
24...	1345	135	7.0	11.5	11.4	55	19	11	6.6	8.0
01476790 - CHESTER CREEK NEAR WEST CHESTER, PA. (LAT 39 59 49 LONG 075 35 40)										
OCT , 1978										
24...	1020	160	5.6	9.5	10.8	60	55	12	7.3	11
01476830 - CHESTER CREEK NEAR MILLTOWN, PA. (LAT 39 58 21 LONG 075 32 57)										
OCT , 1978										
24...	1130	175	6.9	11.5	11.0	85	35	19	9.2	9.3
01476835 - CHESTER CREEK AT WESTTOWN SCHOOL, PA. (LAT 39 56 21 LONG 075 32 28)										
OCT , 1978										
24...	1515	190	7.2	14.0	11.2	87	35	20	9.0	12
01476840 - GOOSE CREEK NEAR WEST CHESTER, PA. (LAT 39 56 01 LONG 075 33 31)										
OCT , 1978										
24...	1515	1025	7.6	14.5	4.6	170	130	46	14	75
01478120 - WHITE CLAY CREEK NEAR AVONDALE, PA. (LAT 39 49 39 LONG 075 46 52)										
OCT , 1978										
25...	1230	295	7.7	9.0	12.8	130	46	30	13	6.6
01478190 - WHITE CLAY CREEK NEAR WICKERTON, PA. (LAT 39 47 44 LONG 075 49 27)										
OCT , 1978										
25...	1545	255	6.8	11.0	13.2	61	25	14	6.3	8.0

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
SCHUYLKILL RIVER BASIN--Continued										
01473167 - LITTLE VALLEY CR NR VALLEY FORGE, PA. (LAT 40 03 51 LONG 075 28 22)										
OCT , 1978 27...	3.1	240	0	200	3.8	45	34	.1	7.5	320
01473168 - VALLEY CREEK NR VALLEY FORGE, PA. (LAT 40 04 08 LONG 075 28 25)										
OCT , 1978 27...	2.8	160	0	130	102	40	55	.5	6.9	311
01475830 - EAST BRANCH CRUM CREEK NEAR PAOLI, PA. (LAT 40 00 28 LONG 075 27 55)										
OCT , 1978 27...	2.2	68	0	56	6.9	13	15	.1	14	118
01475840 - WEST BRANCH CRUM CREEK NEAR PAOLI, PA. (LAT 39 59 52 LONG 075 27 38)										
OCT , 1978 27...	2.3	59	0	48	3.8	12	13	.1	16	114
01476430 - RIDLEY CREEK NEAR GOSHENVILLE, PA. (LAT 39 59 26 LONG 075 32 38)										
OCT , 1978 24...	1.8	43	0	35	5.5	14	15	.1	12	93
01476435 - RIDLEY CREEK NEAR DUTTON MILL, PA. (LAT 39 58 50 LONG 075 31 00)										
OCT , 1978 24...	1.8	44	0	36	7.0	13	14	.1	14	96
01476790 - CHESTER CREEK NEAR WEST CHESTER, PA. (LAT 39 59 49 LONG 075 35 40)										
OCT , 1978 24...	2.2	6	0	5	24	23	27	.0	7.3	214
01476830 - CHESTER CREEK NEAR MILLTOWN, PA. (LAT 39 58 21 LONG 075 32 57)										
OCT , 1978 24...	4.2	61	0	50	12	22	20	.1	15	142
01476835 - CHESTER CREEK AT WESTTOWN SCHOOL, PA. (LAT 39 56 21 LONG 075 32 28)										
OCT , 1978 24...	4.5	63	0	52	6.4	26	20	.1	16	155
01476840 - GOOSE CREEK NEAR WEST CHESTER, PA. (LAT 39 56 01 LONG 075 33 31)										
OCT , 1978 24...	27	56	0	46	2.3	99	160	.2	21	533
01478120 - WHITE CLAY CREEK NEAR AVONDALE, PA. (LAT 39 49 39 LONG 075 46 52)										
OCT , 1978 25...	2.9	100	0	82	3.2	24	14	.1	15	167
01478190 - WHITE CLAY CREEK NEAR WICKERTON, PA. (LAT 39 47 44 LONG 075 49 27)										
OCT , 1978 25...	3.4	44	0	36	11	12	14	.1	13	109

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)
SCHUYLKILL RIVER BASIN--Continued										
01473167 - LITTLE VALLEY CR NR VALLEY FORGE, PA. (LAT 40 03 51 LONG 075 28 22)										
OCT , 1978 27...	306	1.9	.02	1.9	.01	.30	.31	2.2	.030	.01
01473168 - VALLEY CREEK NR VALLEY FORGE, PA. (LAT 40 04 08 LONG 075 28 25)										
OCT , 1978 27...	280	2.8	.02	2.8	.10	.27	.37	3.2	.130	.10
01475830 - EAST BRANCH CRUM CREEK NEAR PAOLI, PA. (LAT 40 00 28 LONG 075 27 55)										
OCT , 1978 27...	112	2.2	.01	2.2	.04	.23	.27	2.5	.010	.00
01475840 - WEST BRANCH CRUM CREEK NEAR PAOLI, PA. (LAT 39 59 52 LONG 075 27 38)										
OCT , 1978 27...	102	1.7	.01	1.7	.03	.31	.34	2.0	.010	.00
01476430 - RIDLEY CREEK NEAR GOSHENVILLE, PA. (LAT 39 59 26 LONG 075 32 38)										
OCT , 1978 24...	91	2.0	.01	2.0	.08	.35	.43	2.4	.080	.06
01476435 - RIDLEY CREEK NEAR DUTTON MILL, PA. (LAT 39 58 50 LONG 075 31 00)										
OCT , 1978 24...	90	2.2	.01	2.2	.09	.26	.35	2.6	.030	.02
01476790 - CHESTER CREEK NEAR WEST CHESTER, PA. (LAT 39 59 49 LONG 075 35 40)										
OCT , 1978 24...	97	5.5	.00	5.5	.00	11	11	17	.010	.00
01476830 - CHESTER CREEK NEAR MILLTOWN, PA. (LAT 39 58 21 LONG 075 32 57)										
OCT , 1978 24...	129	2.0	.05	2.0	.06	.46	.52	2.5	.100	.00
01476835 - CHESTER CREEK AT WESTTOWN SCHOOL, PA. (LAT 39 56 21 LONG 075 32 28)										
OCT , 1978 24...	139	3.2	.02	3.2	.07	.47	.54	3.7	.640	.55
01476840 - GOOSE CREEK NEAR WEST CHESTER, PA. (LAT 39 56 01 LONG 075 33 31)										
OCT , 1978 24...	471	1.7	.69	2.4	33	6.0	39	41	5.20	4.7
01478120 - WHITE CLAY CREEK NEAR AVONDALE, PA. (LAT 39 49 39 LONG 075 46 52)										
OCT , 1978 25...	155	4.4	.01	4.4	.04	.13	.17	4.6	.040	.03
01478190 - WHITE CLAY CREEK NEAR WICKERTON, PA. (LAT 39 47 44 LONG 075 49 27)										
OCT , 1978 25...	93	4.7	.16	4.9	.13	.29	.42	5.3	.310	.30

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
SCHUYLKILL RIVER BASIN--Continued										
01473167 - LITTLE VALLEY CR NR VALLEY FORGE, PA. (LAT 40 03 51 LONG 075 28 22)										
OCT , 1978 27...	2	2	5	1	170	13	20	1	0	.00
01473168 - VALLEY CREEK NR VALLEY FORGE, PA. (LAT 40 04 08 LONG 075 28 25)										
OCT , 1978 27...	2	4	4	4	60	7	10	6	0	.10
01475030 - EAST BRANCH CRUM CREEK NEAR PAOLI, PA. (LAT 40 00 28 LONG 075 27 55)										
OCT , 1978 27...	0	0	0	0	70	3	50	3	0	.00
01475040 - WEST BRANCH CRUM CREEK NEAR PAOLI, PA. (LAT 39 59 52 LONG 075 27 38)										
OCT , 1978 27...	0	0	1	2	70	6	10	2	10	.00
01476430 - RIDLEY CREEK NEAR GOSHENVILLE, PA. (LAT 39 59 26 LONG 075 32 38)										
OCT , 1978 24...	0	0	0	4	160	5	40	3	0	.00
01476435 - RIDLEY CREEK NEAR DUTTON MILL, PA. (LAT 39 58 50 LONG 075 31 00)										
OCT , 1978 24...	0	0	1	4	140	4	80	3	0	.00
01476790 - CHESTER CREEK NEAR WEST CHESTER, PA. (LAT 39 59 49 LONG 075 35 40)										
OCT , 1978 24...	1	0	1	7	70	12	4200	21	250	.10
01476830 - CHESTER CREEK NEAR MILLTOWN, PA. (LAT 39 58 21 LONG 075 32 57)										
OCT , 1978 24...	0	0	2	1	230	5	140	3	0	.00
01476835 - CHESTER CREEK AT WESTTOWN SCHOOL, PA. (LAT 39 56 21 LONG 075 32 28)										
OCT , 1978 24...	0	0	0	5	210	2	70	1	0	.00
01476840 - GOOSE CREEK NEAR WEST CHESTER, PA. (LAT 39 56 01 LONG 075 33 31)										
OCT , 1978 24...	1	0	1	38	600	5	280	5	360	.70
01478120 - WHITE CLAY CREEK NEAR AVONDALE, PA. (LAT 39 49 39 LONG 075 46 52)										
OCT , 1978 25...	0	0	1	0	10	4	20	2	0	.00
01478190 - WHITE CLAY CREEK NEAR WICKERTON, PA. (LAT 39 47 44 LONG 075 49 27)										
OCT , 1978 25...	0	0	1	3	50	3	30	1	0	.10

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
CHRISTINA RIVER BASIN										
01478220 - W BR WHITE CLAY CR NR CHESTERVILLE, PA. (LAT 39 45 56 LONG 075 47 47)										
OCT , 1978 26...	0945	170	6.7	10.0	12.0	45	23	11	4.2	6.4
01479780 - RED CLAY CREEK NEAR KENNETT SQUARE, PA. (LAT 39 50 13 LONG 075 43 33)										
OCT , 1978 25...	1145	320	7.3	10.0	12.0	110	40	25	11	9.0
01479800 - RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11 LONG 075 41 29)										
OCT , 1978 25...	1045	320	7.2	8.5	13.0	110	48	27	10	9.0
01480430 - W BR BRANDYWINE CR NR COATESVILLE, PA. (LAT 40 00 17 LONG 075 49 31)										
NOV , 1978 02...	1630	240	6.9	12.0	--	71	26	17	6.9	6.3
01480629 - BUCK RUN NEAR DOE RUN, PA. (LAT 39 55 44 LONG 075 49 47)										
OCT , 1978 26...	1630	250	6.9	11.0	11.0	70	34	18	6.2	8.1
01480632 - DOE RUN NEAR SPRINGDALE, PA. (LAT 39 54 21 LONG 075 49 42)										
OCT , 1978 26...	1545	175	6.9	11.0	11.2	46	25	11	4.5	4.8
01480640 - WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34 LONG 075 39 47)										
NOV , 1978 03...	1200	380	7.5	10.5	12.0	83	37	21	7.5	9.9
01480647 - E BR BRANDYWINE CR NR STRUBLE DAM, PA. (LAT 40 06 05 LONG 075 51 40)										
NOV , 1978 02...	1330	240	7.2	14.0	12.8	64	23	16	5.9	6.2
01480648 - EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41 LONG 075 51 14)										
NOV , 1978 02...	1245	240	7.2	11.0	18.0	140	61	31	16	10
01480655 - EAST BR. BRANDYWINE CREEK NEAR GLENMOORE, PA. (LAT 40 04 25 LONG 075 49 01)										
NOV , 1978 02...	1015	200	7.0	8.5	11.8	44	4	11	4.1	7.4
01480656 - INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 30 LONG 075 46 57)										
NOV , 1978 02...	1130	220	7.1	8.5	13.0	60	17	17	4.2	9.7
01480903 - VALLEY CREEK AT MULLSTEINS MEADOWS, PA. (LAT 39 58 31 LONG 075 39 48)										
NOV , 1978 02...	1515	420	7.7	12.0	13.6	64	22	17	5.3	7.2

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
CHRISTINA RIVER BASIN--Continued										
01478220 - W BR WHITE CLAY CR NR CHESTERVILLE, PA. (LAT 39 45 56 LONG 075 47 47)										
OCT , 1978 26...	2.9	26	0	21	8.3	12	11	.1	12	92
01479780 - RED CLAY CREEK NEAR KENNETT SQUARE, PA. (LAT 39 50 13 LONG 075 43 33)										
OCT , 1978 25...	3.2	83	0	68	6.7	24	15	.1	16	152
01479800 - RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11 LONG 075 41 29)										
OCT , 1978 25...	3.5	74	0	61	7.5	33	20	.1	17	166
01480430 - W BR BRANDYWINE CR NR COATESVILLE, PA. (LAT 40 00 17 LONG 075 49 31)										
NOV , 1978 02...	2.6	55	0	45	11	15	12	.1	13	110
01480629 - BUCK RUN NEAR DOE RUN, PA. (LAT 39 55 44 LONG 075 49 47)										
OCT , 1978 26...	2.3	45	0	37	9.1	16	16	.1	8.1	125
01480632 - DOE RUN NEAR SPRINGDALE, PA. (LAT 39 54 21 LONG 075 49 42)										
OCT , 1978 26...	2.0	26	0	21	5.2	7.7	10	.0	8.9	88
01480640 - WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34 LONG 075 39 47)										
NOV , 1978 03...	3.0	56	0	46	2.8	20	17	.1	9.4	129
01480647 - E BR BRANDYWINE CR NR STRUBLE DAM, PA. (LAT 40 06 05 LONG 075 51 40)										
NOV , 1978 02...	3.1	50	0	41	5.0	11	12	.1	12	110
01480648 - EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41 LONG 075 51 14)										
NOV , 1978 02...	2.6	100	0	82	10	40	21	.1	5.3	208
01480655 - EAST BR. BRANDYWINE CREEK NEAR GLENMOORE, PA. (LAT 40 04 25 LONG 075 49 01)										
NOV , 1978 02...	2.3	49	0	40	7.8	10	9.8	.1	18	110
01480656 - INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 30 LONG 075 46 57)										
NOV , 1978 02...	1.8	52	0	43	6.6	6.8	13	.1	26	117
01480903 - VALLEY CREEK AT MULLSTEINS MEADOWS, PA. (LAT 39 58 31 LONG 075 39 48)										
NOV , 1978 02...	2.7	52	0	43	1.7	11	11	.1	17	118

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)
CHRISTINA RIVER BASIN--Continued										
01478220 - W BR WHITE CLAY CR NR CHESTERVILLE, PA. (LAT 39 45 56 LONG 075 47 47)										
OCT , 1978 26...	73	2.5	.01	2.5	.06	.31	.37	2.9	.010	.00
01479780 - RED CLAY CREEK NEAR KENNETT SQUARE, PA. (LAT 39 50 13 LONG 075 43 33)										
OCT , 1978 25...	144	3.7	.04	3.7	.10	.17	.27	4.0	.030	.03
01479800 - RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11 LONG 075 41 29)										
OCT , 1978 25...	156	4.0	.02	4.0	.09	.01	.10	4.1	.060	.04
01480430 - W BR BRANDYWINE CR NR COATESVILLE, PA. (LAT 40 00 17 LONG 075 49 31)										
NOV , 1978 02...	100	2.2	.01	2.2	.00	.28	.28	2.5	.010	.01
01480629 - BUCK RUN NEAR DOE RUN, PA. (LAT 39 55 44 LONG 075 49 47)										
OCT , 1978 26...	97	4.4	.04	4.4	.10	.37	.47	4.9	.090	.07
01480632 - DOE RUN NEAR SPRINGDALE, PA. (LAT 39 54 21 LONG 075 49 42)										
OCT , 1978 26...	62	4.2	.01	4.2	.08	.32	.40	4.6	.040	.04
01480640 - WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34 LONG 075 39 47)										
NOV , 1978 03...	116	2.9	.03	2.9	.03	.35	.38	3.3	.170	.15
01480647 - E BR BRANDYWINE CR NR STRUBLE DAM, PA. (LAT 40 06 05 LONG 075 51 40)										
NOV , 1978 02...	91	2.5	.01	2.5	.30	.64	.94	3.4	.010	.00
01480648 - EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41 LONG 075 51 14)										
NOV , 1978 02...	175	4.0	.03	4.0	.07	.33	.40	4.4	.090	.08
01480655 - EAST BR. BRANDYWINE CREEK NEAR GLENMOORE, PA. (LAT 40 04 25 LONG 075 49 01)										
NOV , 1978 02...	87	2.5	.01	2.5	.06	.45	.51	3.0	.020	.01
01480656 - INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 30 LONG 075 46 57)										
NOV , 1978 02...	104	2.8	.01	2.8	.10	.33	.43	3.2	.120	.11
01480903 - VALLEY CREEK AT HULLSTEINS MEADOWS, PA. (LAT 39 58 31 LONG 075 39 48)										
NOV , 1978 02...	97	2.6	.01	2.6	.04	.40	.44	3.0	.020	.01

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
CHRISTINA RIVER BASIN--Continued										
01478220 - W BR WHITE CLAY CR NR CHESTERVILLE, PA. (LAT 39 45 56 LONG 075 47 47)										
OCT , 1978 26...	1	0	1	1	90	13	30	1	0	.00
01479780 - RED CLAY CREEK NEAR KENNETT SQUARE, PA. (LAT 39 50 13 LONG 075 43 33)										
OCT , 1978 25...	0	0	1	1	60	5	50	3	0	.00
01479800 - RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 40 11 LONG 075 41 29)										
OCT , 1978 25...	0	0	1	2	40	1	30	3	0	.00
01480430 - W BR BRANDYWINE CR NR COATESVILLE, PA. (LAT 40 00 17 LONG 075 49 31)										
NOV , 1978 02...	0	0	0	1	140	0	20	1	0	.00
01480629 - BUCK RUN NEAR DOE RUN, PA. (LAT 39 55 44 LONG 075 49 47)										
OCT , 1978 26...	1	0	3	2	150	7	60	0	0	.10
01480632 - DOE RUN NEAR SPRINGDALE, PA. (LAT 39 54 21 LONG 075 49 42)										
OCT , 1978 26...	0	0	1	2	140	3	40	3	0	.00
01480640 - WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34 LONG 075 39 47)										
NOV , 1978 03...	0	0	0	3	130	1	30	5	0	.00
01480647 - E BR BRANDYWINE CR NR STRUBLE DAM, PA. (LAT 40 06 05 LONG 075 51 40)										
NOV , 1978 02...	0	0	0	3	90	1	70	2	0	.00
01480648 - EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41 LONG 075 51 14)										
NOV , 1978 02...	0	0	0	3	60	2	40	3	0	.00
01480655 - EAST BR, BRANDYWINE CREEK NEAR GLENMOORE, PA. (LAT 40 04 25 LONG 075 49 01)										
NOV , 1978 02...	0	0	0	3	90	1	20	0	0	.00
01480656 - INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 30 LONG 075 46 57)										
NOV , 1978 02...	0	0	1	2	60	2	20	1	0	.00
01480903 - VALLEY CREEK AT HULLSTEINS MEADOWS, PA. (LAT 39 58 31 LONG 075 39 48)										
NOV , 1978 02...	0	0	0	2	70	2	40	0	20	.00

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
CHRISTINA RIVER BASIN--Continued										
01480950 - EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 31 LONG 075 38 55)										
NOV , 1978 03...	1030	390	7.4	10.5	12.0	110	35	26	10	16
01494900 - ELK CREEK AT ELKVIEW, PA. (LAT 39 48 45 LONG 075 54 04)										
OCT , 1978 25...	1500	145	7.4	10.0	12.0	41	18	9.0	4.5	6.5
01494950 - ELK CREEK NEAR OXFORD, PA. (LAT 39 46 45 LONG 075 55 27)										
OCT , 1978 25...	1415	190	7.1	11.5	13.2	45	26	10	4.8	7.5

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
01480950 - EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 31 LONG 075 38 55)										
NOV , 1978 03...	3.2	87	0	71	5.5	34	22	.1	11	197
01494900 - ELK CREEK AT ELKVIEW, PA. (LAT 39 48 45 LONG 075 54 04)										
OCT , 1978 25...	3.6	28	0	23	1.8	4.9	11	.1	10	93
01494950 - ELK CREEK NEAR OXFORD, PA. (LAT 39 46 45 LONG 075 55 27)										
OCT , 1978 25...	2.3	23	0	19	2.9	6.8	14	.1	9.3	96

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)
01480950 - EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 31 LONG 075 38 55)										
NOV , 1978 03...	165	2.7	.06	2.8	.15	.50	.65	3.5	.560	.54
01494900 - ELK CREEK AT ELKVIEW, PA. (LAT 39 48 45 LONG 075 54 04)										
OCT , 1978 25...	64	4.2	.18	4.4	.09	.46	.55	5.0	.200	.17
01494950 - ELK CREEK NEAR OXFORD, PA. (LAT 39 46 45 LONG 075 55 27)										
OCT , 1978 25...	66	4.4	.01	4.4	.06	.25	.31	4.7	.100	.09

DATE	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	NICKEL, DIS-SOLVED (UG/L AS NI)	ZINC, DIS-SOLVED (UG/L AS ZN)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
01480950 - EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 31 LONG 075 38 55)										
NOV , 1978 03...	0	0	0	5	110	2	70	2	0	.10
01494900 - ELK CREEK AT ELKVIEW, PA. (LAT 39 48 45 LONG 075 54 04)										
OCT , 1978 25...	1	0	1	1	100	0	10	1	0	.10
01494950 - ELK CREEK NEAR OXFORD, PA. (LAT 39 46 45 LONG 075 55 27)										
OCT , 1978 25...	2	0	2	2	50	2	20	0	0	.10

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

Samples are collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin. Such sites are referred to as miscellaneous sites.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	NITRO-GEN,TOT IN BOT-TOM MA-TERIAL (MG/KG AS N)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
SCHUYLKILL RIVER BASIN										
01467970 - SCHUYLKILL RIVER AT PORT CARBON, PA. (LAT 40 41 40 LONG 076 09 55)										
DEC , 1978 18...	0845	290	6.0	5.0	--	--	0	--	<10	<10
01467700 - WEST BR SCHUYLKILL R AT MINERSVILLE, PA. (LAT 40 41 25 LONG 076 15 25)										
DEC , 1978 18...	0905	600	7.0	4.0	--	--	0	--	<10	10
01467950 - WEST BR SCHUYLKILL R AT CRESSONA, PA. (LAT 40 38 03 LONG 076 11 31)										
DEC , 1978 18...	0915	520	6.5	5.0	16000	330	1	--	<10	10
01469050 - SCHUYLKILL RIVER AT AUBURN, PA. (LAT 40 36 05 LONG 076 05 20)										
DEC , 1978 18...	1230	190	6.3	0.5	--	--	0	--	<10	10
01469700 - LITTLE SCHUYLKILL R AT NEW RINGGOLD, PA. (LAT 40 41 12 LONG 076 00 10)										
DEC , 1978 18...	1050	350	6.0	4.0	--	--	0	--	<10	10
01470080 - LITTLE SCHUYLKILL RIVER AT DREHERSVILLE, PA. (LAT 40 38 40 LONG 076 00 59)										
DEC , 1978 18...	1115	300	6.9	4.0	--	--	0	--	<10	<10
01470100 - LITTLE SCHUYLKILL R AT PORT CLINTON, PA. (LAT 40 35 24 LONG 076 01 43)										
DEC , 1978 18...	1325	260	6.3	4.5	2900	320	0	--	<10	<10
01470080 - SCHUYLKILL R AT PORT CLINTON, PA. (LAT 40 34 25 LONG 076 01 11)										
DEC , 1978 18...	1300	230	5.9	4.0	--	--	0	--	<10	<10
01470570 - SCHUYLKILL R ABOVE MAIDEN CR NR LEESPORT, PA. (LAT 40 25 47 LONG 075 57 29)										
DEC , 1978 18...	1610	310	6.3	4.5	--	--	0	--	<10	10
01470795 - MAIDEN CR NEAR VIRGINVILLE, PA. (LAT 40 31 32 LONG 075 52 31)										
DEC , 1978 18...	1515	175	7.1	4.0	1700	230	0	--	<10	10
01470960 - MAIDEN CREEK NEAR LEESPORT, PA (LAT 40 25 28 LONG 075 56 40)										
DEC , 1978 19...	0725	225	7.6	2.5	2700	280	0	--	<10	10
01470967 - SCHUYLKILL R AT FELIX DAM NEAR READING, PA. (LAT 40 23 36 LONG 075 58 23)										
DEC , 1978 18...	1645	290	6.7	4.0	--	--	0	--	<10	10

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	SILVER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS AG)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
SCHUYLKILL RIVER BASIN--Continued										
01467470 - SCHUYLKILL RIVER AT PORT CARBON, PA. (LAT 40 41 40 LONG 076 09 55)										
DEC , 1978 18...	20	40	.05	--	--	50	--	--	--	--
01467700 - WEST BR SCHUYLKILL R AT MINERSVILLE, PA. (LAT 40 41 25 LONG 076 15 25)										
DEC , 1978 18...	30	30	.00	--	--	70	--	--	--	--
01467950 - WEST BR SCHUYLKILL R AT CRESSONA, PA. (LAT 40 38 03 LONG 076 11 31)										
DEC , 1978 18...	40	40	.12	--	--	190	.1	283	--	--
01469000 - SCHUYLKILL RIVER AT AUBURN, PA. (LAT 40 36 05 LONG 076 05 20)										
DEC , 1978 18...	20	20	.00	--	--	70	--	--	--	--
01469790 - LITTLE SCHUYLKILL R AT NEW RINGGOLD, PA. (LAT 40 41 12 LONG 076 00 10)										
DEC , 1978 18...	30	40	.25	--	--	70	--	--	--	--
01470000 - LITTLE SCHUYLKILL RIVER AT DREHERSVILLE, PA. (LAT 40 38 40 LONG 076 00 50)										
DEC , 1978 18...	30	20	.23	--	--	90	--	--	--	--
01470190 - LITTLE SCHUYLKILL R AT PORT CLINTON, PA. (LAT 40 35 24 LONG 076 01 43)										
DEC , 1978 18...	30	70	.04	--	--	80	.1	30	--	--
01470400 - SCHUYLKILL R AT PORT CLINTON, PA. (LAT 40 34 25 LONG 076 01 11)										
DEC , 1978 18...	30	20	.14	--	--	80	--	--	--	--
01470570 - SCHUYLKILL R ABOVE MAIDEN CR NR LEESPORT, PA. (LAT 40 25 47 LONG 075 57 29)										
DEC , 1978 18...	40	190	.13	--	--	330	--	--	--	--
01470755 - MAIDEN CR NEAR VIRGINVILLE, PA. (LAT 40 31 32 LONG 075 52 31)										
DEC , 1978 18...	20	30	.08	--	--	80	.0	4.5	0	.0
01470764 - MAIDEN CREEK NEAR LEESPORT, PA (LAT 40 25 28 LONG 075 56 40)										
DEC , 1978 19...	20	50	.00	--	--	60	1.5	9.8	76	.0
01470767 - SCHUYLKILL R AT FELIX DAM NEAR READING, PA. (LAT 40 23 36 LONG 075 58 23)										
DEC , 1978 18...	30	90	.07	--	--	130	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
SCHUYLKILL RIVER BASIN--Continued										
01467470 - SCHUYLKILL RIVER AT PORT CARBON, PA. (LAT 40 41 40 LONG 076 09 55)										
DEC , 1978 18...	--	--	--	--	--	--	--	--	--	--
01467700 - WEST BR SCHUYLKILL R AT MINERSVILLE, PA. (LAT 40 41 25 LONG 076 15 25)										
DEC , 1978 18...	--	--	--	--	--	--	--	--	--	--
01467950 - WEST BR SCHUYLKILL R AT CRESSONA, PA. (LAT 40 38 03 LONG 076 11 31)										
DEC , 1978 18...	--	--	--	--	--	--	--	--	--	--
01469000 - SCHUYLKILL RIVER AT AUBURN, PA. (LAT 40 36 05 LONG 076 05 20)										
DEC , 1978 18...	--	--	--	--	--	--	--	--	--	--
01469790 - LITTLE SCHUYLKILL R AT NEW RINGGOLD, PA. (LAT 40 41 12 LONG 076 00 10)										
DEC , 1978 18...	--	--	--	--	--	--	--	--	--	--
01470000 - LITTLE SCHUYLKILL RIVER AT DREHERSVILLE, PA. (LAT 40 38 40 LONG 076 00 50)										
DEC , 1978 18...	--	--	--	--	--	--	--	--	--	--
01470190 - LITTLE SCHUYLKILL R AT PORT CLINTON, PA. (LAT 40 35 20 LONG 076 01 43)										
DEC , 1978 18...	--	--	--	--	--	--	--	--	--	--
01470400 - SCHUYLKILL R AT PORT CLINTON, PA. (LAT 40 34 25 LONG 076 01 11)										
DEC , 1978 18...	--	--	--	--	--	--	--	--	--	--
01470570 - SCHUYLKILL R ABOVE MAIDEN CR NR LEESPORT, PA. (LAT 40 25 47 LONG 075 57 29)										
DEC , 1978 18...	--	--	--	--	--	--	--	--	--	--
01470755 - MAIDEN CR NEAR VIRGINVILLE, PA. (LAT 40 31 32 LONG 075 52 31)										
DEC , 1978 18...	0	.0	.0	.0	.0	.0	.0	.0	.0	0
01470768 - MAIDEN CREEK NEAR LEESPORT, PA (LAT 40 25 28 LONG 075 56 40)										
DEC , 1978 19...	0	.0	.0	1.3	.0	.0	.0	.0	.0	0
01470767 - SCHUYLKILL R AT FELIX DAM NEAR READING, PA. (LAT 40 23 36 LONG 075 58 23)										
DEC , 1978 18...	--	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	NITRO-GEN,TOT IN BOT-TOM MA-TERIAL (MG/KG AS N)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
SCHUYLKILL RIVER BASIN--Continued										
01470768 - LAUREL RUN AT MOUTH NEAR READING, PA. (LAT 40 24 08 LONG 075 55 40)										
DEC , 1978 19...	0800	480	7.7	2.5	--	--	0	--	<10	10
01470771 - BERNHART RUN AT READING, PA. (LAT 40 22 18 LONG 075 55 12)										
DEC , 1978 19...	0720	1400	7.3	4.5	1300	290	0	--	<10	20
01470772 - SCHUYLKILL R ABOVE TULPEHOCKEN CR AT READING, PA (LAT 40 20 52 LONG 075 57 00)										
DEC , 1978 19...	0830	310	7.1	2.5	18000	1400	0	--	<10	140
01470982 - CACOOSING CREEK NEAR READING, PA. (LAT 40 21 58 LONG 075 59 41)										
DEC , 1978 19...	0915	520	7.5	4.0	--	--	0	--	<10	20
01471520 - WYOMISSING CR. @ WEST READING PA (LAT 40 19 41 LONG 075 56 41.01)										
DEC , 1978 19...	1030	420	7.8	3.0	1900	160	2	--	<10	10
01471570 - SCHUYLKILL R AT RIDGEWOOD NEAR READING, PA. (LAT 40 18 08 LONG 075 56 21)										
DEC , 1978 19...	1200	340	7.1	2.0	1900	280	0	--	<10	10
01471625 - SCHUYLKILL R NEAR LORANE, PA. (LAT 40 17 20 LONG 075 52 05)										
DEC , 1978 19...	1205	350	7.3	4.0	30000	2000	0	--	<10	120
APR , 1979 19...	1105	307	6.8	13.5	--	--	2	0	10	80
01471650 - ANTIETAM CR AT LORANE, PA. (LAT 40 17 57 LONG 075 50 56)										
DEC , 1978 19...	1310	310	7.8	3.0	2100	370	0	--	<10	10
01471670 - HAY CR AT BIRDSBORO, PA. (LAT 40 16 00 LONG 075 48 22)										
DEC , 1978 19...	1530	160	6.8	3.0	900	72	0	--	<10	<10
01471680 - SCHUYLKILL R AT MONOCACY STA NR BIRDSBORO, PA. (LAT 40 15 31 LONG 075 46 08)										
DEC , 1978 19...	0850	320	7.5	3.0	8700	25	1	--	<10	50
01471740 - MONOCACY CR NEAR MONOCACY, PA. (LAT 40 15 49 LONG 075 46 04)										
DEC , 1978 19...	1330	450	--	1.0	2400	360	0	--	<10	10
01471900 - MANATAWNY CR AT EARLVILLE, PA. (LAT 40 19 05 LONG 075 44 01)										
DEC , 1978 19...	1415	280	8.2	2.0	1200	80	0	--	<10	<10

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	SILVER, RECOV. FM BOTTOM MATERIAL (UG/G AS AG)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
SCHUYLKILL RIVER BASIN--Continued										
01470768 - LAUREL RUN AT MOUTH NEAR READING, PA. (LAT 40 24 08 LONG 075 55 40)										
DEC , 1978 19...	20	80	.00	--	--	30	--	--	--	--
01470771 - BERNHART RUN AT READING, PA. (LAT 40 22 18 LONG 075 55 12)										
DEC , 1978 19...	30	1600	.16	--	--	100	5.2	12	30	.0
01470772 - SCHUYLKILL R ABOVE TULPEHOCKEN CR AT READING, PA (LAT 40 20 52 LONG 075 57 00)										
DEC , 1978 19...	110	500	.19	--	--	480	1.0	15	310	.0
01470982 - CACOOSING CREEK NEAR READING, PA. (LAT 40 21 58 LONG 075 59 41)										
DEC , 1978 19...	180	370	.09	--	--	120	--	--	--	--
01471520 - WYOMISSING CR. @ WEST READING PA (LAT 40 19 41 LONG 075 56 41.01)										
DEC , 1978 19...	20	230	.00	--	--	100	30	18	400	.0
01471570 - SCHUYLKILL R AT RIDGEWOOD NEAR READING, PA. (LAT 40 18 08 LONG 075 54 21)										
DEC , 1978 19...	30	300	.08	--	--	80	9.5	35	76	.0
01471625 - SCHUYLKILL R NEAR LORANE, PA. (LAT 40 17 20 LONG 075 52 05)										
DEC , 1978 19...	320	330	.38	--	--	820	4.9	128	950	.0
APR , 1979 19...	150	350	.08	0	10	580	1.9	152	160	.0
01471650 - ANTIETAM CR AT LORANE, PA. (LAT 40 17 57 LONG 075 50 56)										
DEC , 1978 19...	20	40	.00	--	--	60	1.5	7.1	12	.0
01471670 - HAY CR AT BIRDSBORO, PA. (LAT 40 16 00 LONG 075 48 22)										
DEC , 1978 19...	<10	120	.00	--	--	30	.1	2.9	0	.0
01471680 - SCHUYLKILL R AT MONOCACY STA NR BIRDSBORO, PA. (LAT 40 15 31 LONG 075 46 08)										
DEC , 1978 19...	330	260	.16	--	--	700	4.0	79	310	.0
01471740 - MONOCACY CR NEAR MONOCACY, PA. (LAT 40 15 49 LONG 075 46 04)										
DEC , 1978 19...	10	40	.00	--	--	50	.8	7.4	4	.0
01471900 - MANATAWNY CR AT EARLVILLE, PA. (LAT 40 19 05 LONG 075 44 01)										
DEC , 1978 19...	<10	20	.00	--	--	30	.3	3.4	9	.0

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
SCHUYLKILL RIVER BASIN--Continued										
01470760 - LAUREL RUN AT MOUTH NEAR READING, PA. (LAT 40 24 08 LONG 075 55 40)										
DEC , 1978 19...	--	--	--	--	--	--	--	--	--	--
01470771 - BERNHART RUN AT READING, PA. (LAT 40 22 10 LONG 075 55 12)										
DEC , 1978 19...	2	.2	.0	.6	.0	.0	.0	.0	.0	0
01470772 - SCHUYLKILL R ABOVE TULPEHOCKEN CR AT READING, PA (LAT 40 20 52 LONG 075 57 00)										
DEC , 1978 19...	10	11	.0	14	.7	.0	.0	.0	.0	0
01470982 - CACOOSING CREEK NEAR READING, PA. (LAT 40 21 50 LONG 075 59 41)										
DEC , 1978 19...	--	--	--	--	--	--	--	--	--	--
01471520 - WYOMISSING CR. @ WEST READING PA (LAT 40 19 41 LONG 075 56 41,01)										
DEC , 1978 19...	57	13	43	62	2.0	.0	.0	.0	.0	0
01471570 - SCHUYLKILL R AT RIDGEWOOD NEAR READING, PA. (LAT 40 18 08 LONG 075 54 21)										
DEC , 1978 19...	10	6.0	2.0	6.7	.0	.0	.0	.0	.0	0
01471625 - SCHUYLKILL R NEAR LORANE, PA. (LAT 40 17 20 LONG 075 52 05)										
DEC , 1978 19...	0	.0	.0	.0	.0	.0	.0	.0	.0	0
APR , 1979 19...	3	.0	.9	3.3	.2	.0	.0	.0	.0	0
01471650 - ANTIETAM CR AT LORANE, PA. (LAT 40 17 57 LONG 075 50 56)										
DEC , 1978 19...	10	.0	.0	1.3	.0	.0	.0	.0	.0	0
01471670 - HAY CR AT BIRDSBORO, PA. (LAT 40 16 00 LONG 075 48 22)										
DEC , 1978 19...	7	.0	.4	1.0	.0	.0	.0	.0	.0	0
01471680 - SCHUYLKILL R AT MONOCACY STA NR BIRDSBORO, PA. (LAT 40 15 31 LONG 075 46 08)										
DEC , 1978 19...	20	9.0	.0	14	.0	.0	.0	.0	.0	0
01471740 - MONOCACY CR NEAR MONOCACY, PA. (LAT 40 15 49 LONG 075 46 08)										
DEC , 1978 19...	0	.0	.0	.0	.0	.0	.0	.0	.0	0
01471980 - MANATAWNY CR AT EARLVILLE, PA. (LAT 40 19 05 LONG 075 48 01)										
DEC , 1978 19...	0	.0	.0	.0	.0	.0	.0	.0	.0	0

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	NITRO-GEN,TOT IN BOT-TOM MA-TERIAL (MG/KG AS N)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
SCHUYLKILL RIVER BASIN--Continued										
01471990 - MANATAWNY CR AT POTTSTOWN, PA. (LAT 40 14 47 LONG 075 39 24)										
DEC , 1978 19...	1445	290	8.0	1.5	11000	750	0	--	<10	20
01472040 - SCHUYLKILL R AT LINFIELD, PA. (LAT 40 12 18 LONG 075 34 52)										
DEC , 1978 19...	1050	330	7.4	3.0	--	--	0	--	<10	50
APR , 1979 19...	0830	270	7.1	11.0	--	--	2	2	10	70
01472120 - SCHUYLKILL R AT BL ROCK POOL NR PHOENIXVILLE PA. (LAT 40 08 46 LONG 075 30 33)										
DEC , 1978 19...	1600	325	7.4	7.0	30000	2200	4	--	30	130
01472161 - FRENCH CREEK AT PHOENIXVILLE, PA. (LAT 40 08 07 LONG 075 31 05)										
DEC , 1978 28...	1320	185	7.3	1.0	--	--	0	--	<10	20
01472162 - SCHUYLKILL RIVER AT PHOENIXVILLE, PA (LAT 40 08 11 LONG 075 30 41)										
DEC , 1978 28...	1210	300	7.5	2.5	--	--	--	--	<10	<10
01472191 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33 LONG 075 31 42)										
DEC , 1978 19...	1455	210	7.6	2.0	280	100	1	--	<10	10
01473070 - SKIPPACK CR AT SKIPPACK, PA. (LAT 40 13 45 LONG [illegible]5 22 52)										
DEC , 1978 19...	1230	570	7.4	1.0	--	--	0	--	<10	20
01473150 - PERKIOMEN CK AT OAKS, PA. (LAT 40 08 06 LONG 075 26 36)										
DEC , 1978 19...	1330	350	7.8	1.5	280	310	0	--	<10	20
01473152 - SCHUYLKILL R NEAR VALLEY FORGE, PA. (LAT 40 06 53 LONG 075 28 16)										
DEC , 1978 19...	1420	325	7.7	1.5	1200	230	0	--	<10	20
01473167 - LITTLE VALLEY CK NR VALLEY FORGE, PA. (LAT 40 03 51 LONG 075 28 22)										
DEC , 1978 28...	1130	550	7.8	3.0	--	--	0	--	<10	10
01473180 - VALLEY CK AT VALLEY FORGE, PA. (LAT 40 06 00 LONG 075 27 47)										
DEC , 1978 28...	1050	560	7.6	1.0	451	260	0	--	<10	10
01473490 - STONY CR AT NORRISTOWN, PA. (LAT 40 07 00 LONG 075 21 01)										
DEC , 1978 18...	1645	420	7.7	4.0	--	--	1	--	<10	10

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	SILVER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS AG)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
SCHUYLKILL RIVER BASIN--Continued										
01471990 - MANATAWNY CR AT POTTSTOWN, PA. (LAT 40 14 47 LONG 075 39 24)										
DEC , 1978 19...	20	60	.00	--	--	1300	.3	29	120	.0
01472040 - SCHUYLKILL R AT LINFIELD, PA. (LAT 40 12 10 LONG 075 34 52)										
DEC , 1978 19...	100	300	.14	--	--	380	--	--	--	--
APR , 1979 19...	140	330	.00	0	10	550	.9	130	160	.0
01472120 - SCHUYLKILL R AT BL ROCK POOL NR PHOENIXVILLE PA. (LAT 40 08 46 LONG 075 30 33)										
DEC , 1978 19...	190	250	.67	--	--	1000	1.3	87	120	.0
01472161 - FRENCH CREEK AT PHOENIXVILLE, PA. (LAT 40 08 07 LONG 075 31 05)										
DEC , 1978 20...	50	200	.00	--	--	180	--	--	--	--
01472162 - SCHUYLKILL RIVER AT PHOENIXVILLE, PA (LAT 40 08 11 LONG 075 30 41)										
DEC , 1978 20...	60	100	--	--	--	340	--	--	--	--
01472191 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33 LONG 075 31 42)										
DEC , 1978 19...	<10	20	.00	--	--	50	.0	1.4	0	.0
01473070 - SKIPPACK CR AT SKIPPACK, PA. (LAT 40 13 45 LONG 075 22 52)										
DEC , 1978 19...	20	40	.00	--	--	1090	--	--	--	--
01473150 - PERKIOMEN CR AT OAKS, PA. (LAT 40 08 06 LONG 075 26 36)										
DEC , 1978 19...	20	40	.00	--	--	60	2.4	14	150	.0
01473152 - SCHUYLKILL R NEAR VALLEY FORGE, PA. (LAT 40 06 53 LONG 075 28 16)										
DEC , 1978 19...	10	30	.00	--	--	130	.2	11	0	.0
01473167 - LITTLE VALLEY CR NR VALLEY FORGE, PA. (LAT 40 03 51 LONG 075 28 22)										
DEC , 1978 20...	10	20	.03	--	--	80	--	--	--	--
01473180 - VALLEY CR AT VALLEY FORGE, PA. (LAT 40 06 00 LONG 075 27 47)										
DEC , 1978 20...	<10	20	.00	--	--	50	6.5	13	0	.0
01473490 - STONY CR AT NORRISTOWN, PA. (LAT 40 07 00 LONG 075 21 01)										
DEC , 1978 18...	30	170	.00	--	--	110	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
SCHUYLKILL RIVER BASIN--Continued										
01471990 - MANATAWNY CR AT POTTSTOWN, PA. (LAT 40 14 47 LONG 075 39 24)										
DEC , 1978 19...	12	3.6	1.6	1.4	.0	.0	.0	.0	.0	0
01472040 - SCHUYLKILL R AT LINFIELD, PA. (LAT 40 12 18 LONG 075 34 52)										
DEC , 1978 19...	--	--	--	--	--	--	--	--	--	--
APR , 1979 19...	13	4.3	4.6	14	3.5	.0	.0	.0	.0	0
01472120 - SCHUYLKILL R AT BL ROCK POOL NR PHOENIXVILLE PA. (LAT 40 08 46 LONG 075 30 33)										
DEC , 1978 19...	41	12	.0	3.0	.0	.0	.0	.0	.0	0
01472161 - FRENCH CREEK AT PHOENIXVILLE, PA. (LAT 40 08 07 LONG 075 31 05)										
DEC , 1978 28...	--	--	--	--	--	--	--	--	--	--
01472162 - SCHUYLKILL RIVER AT PHOENIXVILLE, PA (LAT 40 08 11 LONG 075 30 41)										
DEC , 1978 28...	--	--	--	--	--	--	--	--	--	--
01472191 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33 LONG 075 31 42)										
DEC , 1978 19...	0	.0	.0	.0	.0	.0	.0	.0	.0	0
01473070 - SKIPPACK CR AT SKIPPACK, PA. (LAT 40 13 45 LONG 075 22 52)										
DEC , 1978 19...	--	--	--	--	--	--	--	--	--	--
01473150 - PERKIOMEN CR AT OAKS, PA. (LAT 40 08 06 LONG 075 26 36)										
DEC , 1978 19...	9	.7	.0	1.1	.0	.0	.0	.0	.0	0
01473152 - SCHUYLKILL R NEAR VALLEY FORGE, PA. (LAT 40 06 53 LONG 075 28 16)										
DEC , 1978 19...	0	.0	.0	.0	.0	.0	.0	.0	.0	0
01473167 - LITTLE VALLEY CR NR VALLEY FORGE, PA. (LAT 40 03 51 LONG 075 28 22)										
DEC , 1978 28...	--	--	--	--	--	--	--	--	--	--
01473180 - VALLEY CR AT VALLEY FORGE, PA. (LAT 40 06 00 LONG 075 27 47)										
DEC , 1978 28...	2	.0	.0	1.2	1.0	.0	.0	.0	.0	0
01473490 - STONY CR AT NORRISTOWN, PA. (LAT 40 07 00 LONG 075 21 01)										
DEC , 1978 18...	--	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	NITRO- GEN,TOT IN BOT- TOM MA- TERIAL (MG/KG AS N)	PHOS- PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BERYL- LIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)
SCHUYLKILL RIVER BASIN--Continued										
01473500 - SCHUYLKILL R AT NORRISTOWN, PA. (LAT 40 06 40 LONG 075 20 50)										
DEC , 1978 18...	1605	335	7.4	4.5	7300	670	1	--	<10	30
01473730 - SCHUYLKILL R AT CONSHOHOCKEN, PA. (LAT 40 04 14 LONG 075 18 36)										
DEC , 1978 18...	0955	315	7.7	4.0	--	--	2	--	<10	30
01473900 - WISSAHICKON CR AT FORT WASHINGTON, PA. (LAT 40 07 26 LONG 075 13 13)										
DEC , 1978 18...	1455	660	7.5	5.0	930	350	0	--	<10	10

DATE	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	SILVER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS AG)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
01473500 - SCHUYLKILL R AT NORRISTOWN, PA. (LAT 40 06 40 LONG 075 20 50)										
DEC , 1978 18...	70	400	.01	--	--	1000	7.1	127	2400	.0
01473730 - SCHUYLKILL R AT CONSHOHOCKEN, PA. (LAT 40 04 14 LONG 075 18 36)										
DEC , 1978 18...	50	320	.03	--	--	650	--	--	--	--
01473900 - WISSAHICKON CR AT FORT WASHINGTON, PA. (LAT 40 07 26 LONG 075 13 13)										
DEC , 1978 18...	10	30	.08	--	--	50	.5	5.1	2	.0

DATE	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
01473500 - SCHUYLKILL R AT NORRISTOWN, PA. (LAT 40 06 40 LONG 075 20 50)										
DEC , 1978 18...	64	.0	.0	8.3	2.3	.0	.0	.0	.0	0
01473730 - SCHUYLKILL R AT CONSHOHOCKEN, PA. (LAT 40 04 14 LONG 075 18 36)										
DEC , 1978 18...	--	--	--	--	--	--	--	--	--	--
01473900 - WISSAHICKON CR AT FORT WASHINGTON, PA. (LAT 40 07 26 LONG 075 13 13)										
DEC , 1978 18...	0	.0	.0	.0	.7	.0	.0	.0	.0	0

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
SCHUYLKILL RIVER BASIN--Continued										
01470759 - MAIDEN CREEK AT WILEYS BRIDGE NEAR TEMPLE, PA (LAT 40 26 21 LONG 075 55 37)										
SEP , 1979										
06...	0930	790	185	8.6	--	--	0	--	--	4
06...	1940	1780	190	8.7	--	--	0	--	--	4
07...	0900	1060	193	8.9	--	--	1	--	--	7
01470764 - MAIDEN CREEK NEAR LEESPORT, PA (LAT 40 25 28 LONG 075 56 40)										
DEC , 1978										
19...	0725	--	225	7.6	2.5	1	--	1	0	--
01470771 - BERNHART RUN AT READING, PA. (LAT 40 22 18 LONG 075 55 12)										
JUN , 1979										
26...	0945	--	--	--	--	--	0	--	--	10
01471519 - WYOMISSING CRK AT MUSEUM RD., WEST READING, PA (LAT 40 19 37 LONG 075 56 58)										
AUG , 1979										
12...	1410	71	--	--	17.0	--	0	--	--	9
SEP										
06...	0515	112	291	7.6	--	--	0	--	--	8
06...	0955	137	291	7.6	--	--	1	--	--	17
22...	1310	41	300	7.2	17.0	--	0	--	--	7
01471540 - ANGELICA CREEK AT READING, PA (LAT 40 18 36 LONG 075 55 22)										
AUG , 1979										
12...	1510	26	--	--	17.0	--	2	--	--	6
SEP										
06...	1025	48	151	7.1	--	--	0	--	--	7
01471680 - SCHUYLKILL R AT MONOCACY STA NR BIRDSBORO, PA. (LAT 40 15 31 LONG 075 46 08)										
DEC , 1978										
19...	0850	--	320	7.5	3.0	2	--	1	1	--
01472120 - SCHUYLKILL R AT BL ROCK POOL NR PHOENIXVILLE PA. (LAT 40 08 46 LONG 075 30 33)										
DEC , 1978										
19...	1600	--	325	7.4	7.0	2	--	13	1	--
01472161 - FRENCH CREEK AT PHOENIXVILLE, PA. (LAT 40 08 07 LONG 075 31 05)										
SEP , 1979										
06...	1500	1100	96	6.6	--	--	1	--	--	25
01472191 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33 LONG 075 31 42)										
DEC , 1978										
19...	1455	--	210	7.6	2.0	1	--	12	0	--
01473150 - PERKIOMEN CK AT OAKS, PA. (LAT 40 08 06 LONG 075 26 36)										
DEC , 1978										
19...	1330	--	350	7.8	1.5	1	--	6	2	--
01473152 - SCHUYLKILL R NEAR VALLEY FORGE, PA. (LAT 40 06 53 LONG 075 28 16)										
DEC , 1978										
19...	1420	--	325	7.7	1.5	1	--	7	0	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SCHUYLKILL RIVER BASIN--Continued

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	PCB, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)
01470759 - MAIDEN CREEK AT WILEYS BRIDGE NEAR TEMPLE, PA (LAT 40 26 21 LONG 075 55 37)										
SEP , 1979 06...	--	1	--	--	4	10	--	.00	.0	.00
06...	--	0	--	--	7	0	--	.00	.0	.00
07...	--	0	--	--	10	120	--	.00	.0	.00
01470764 - MAIDEN CREEK NEAR LEESPORT, PA (LAT 40 25 28 LONG 075 56 40)										
DEC , 1978 19...	4	--	3	<.5	--	--	10	.00	.0	.00
01470771 - BERNHART RUN AT READING, PA. (LAT 40 22 10 LONG 075 55 12)										
JUN , 1979 26...	--	10	--	--	--	30	--	--	--	--
01471519 - WYOMISSING CRK AT MUSEUM RD., WEST READING, PA (LAT 40 19 37 LONG 075 56 50)										
AUG , 1979 12...	--	19	--	--	--	60	--	--	.0	--
SEP 06...	--	12	--	--	9	180	--	.00	.0	.00
06...	--	42	--	--	11	30	--	.00	.0	.00
22...	--	10	--	--	1	50	--	.00	.0	.00
01471540 - ANGELICA CREEK AT READING, PA (LAT 40 18 36 LONG 075 55 22)										
AUG , 1979 12...	--	7	--	--	--	10	--	--	.0	--
SEP 06...	--	24	--	--	3	60	--	.00	.0	.00
01471680 - SCHUYLKILL R AT MONOCACY STA NR BIRDSBORO, PA. (LAT 40 15 31 LONG 075 46 08)										
DEC , 1978 19...	4	--	2	<.5	--	--	20	.00	.0	.00
01472120 - SCHUYLKILL R AT BL ROCK POOL NR PHOENIXVILLE PA. (LAT 40 08 46 LONG 075 30 33)										
DEC , 1978 19...	5	--	190	<.5	--	--	80	.00	.0	.00
01472161 - FRENCH CREEK AT PHOENIXVILLE, PA. (LAT 40 08 07 LONG 075 31 05)										
SEP , 1979 06...	--	34	--	--	12	140	--	.00	.0	.00
01472191 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33 LONG 075 31 42)										
DEC , 1978 19...	4	--	180	<.5	--	--	0	.00	.0	.00
01473150 - PERKIOMEN CR AT OAKS, PA. (LAT 40 08 06 LONG 075 26 36)										
DEC , 1978 19...	3	--	56	<.5	--	--	0	.00	.0	.00
01473152 - SCHUYLKILL R NEAR VALLEY FORGE, PA. (LAT 40 06 53 LONG 075 28 16)										
DEC , 1978 19...	8	--	96	<.5	--	--	0	.00	.0	.00

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SCHUYLKILL RIVER BASIN--Continued

01470759 - MAIDEN CREEK AT WILEYS BRIDGE NEAR TEMPLE, PA (LAT 40 26 21 LONG 075 55 37)

DATE	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)
SEP , 1979										
06...	.00	.0	.00	.00	.00	--	.00	.00	.00	.00
06...	.00	.0	.00	.00	.00	--	.00	.00	.00	.00
07...	.00	.0	.00	.00	.00	--	.00	.00	.00	.00

01470764 - MAIDEN CREEK NEAR LEESPORT, PA (LAT 40 25 28 LONG 075 56 40)

DATE	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)
DEC , 1978										
19...	.00	.0	.00	.00	.00	--	.00	.00	.00	.00

01470771 - BERNHART RUN AT READING, PA. (LAT 40 22 18 LONG 075 55 12)

DATE	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)
JUN , 1979										
20...	--	--	--	--	--	--	--	--	--	--

01471519 - WYOMISSING CRK AT MUSEUM RD., WEST READING, PA (LAT 40 19 37 LONG 075 56 58)

DATE	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)
AUG , 1979										
12...	.00	.0	.00	.00	.00	.00	.00	--	.00	.00
SEP										
06...	.00	.0	.00	.00	.00	--	.00	.00	.00	.00
06...	.00	.0	.00	.00	.00	--	.00	.00	.00	.00
22...	.00	.0	.00	.00	.00	--	.00	.00	.00	.00

01471580 - ANGELICA CREEK AT READING, PA (LAT 40 18 36 LONG 075 55 22)

DATE	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)
AUG , 1979										
12...	.00	.0	.00	.00	.00	.00	.00	--	.00	.00
SEP										
06...	.00	.0	.00	.00	.00	--	.00	.00	.00	.00

01471680 - SCHUYLKILL R AT MONOCACY STA NR BIRDSBORO, PA. (LAT 40 15 31 LONG 075 46 08)

DATE	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)
DEC , 1978										
19...	.00	.0	.00	.00	.00	--	.00	.00	.00	.00

01472120 - SCHUYLKILL R AT BL ROCK POOL NR PHOENIXVILLE PA. (LAT 40 08 46 LONG 075 30 33)

DATE	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)
DEC , 1978										
19...	.00	.0	.00	.00	.00	--	.00	.00	.00	.00

01472161 - FRENCH CREEK AT PHOENIXVILLE, PA. (LAT 40 08 07 LONG 075 31 05)

DATE	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)
SEP , 1979										
06...	.00	.0	.00	.00	.00	--	.00	.00	.00	.00

01472191 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33 LONG 075 31 42)

DATE	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)
DEC , 1978										
19...	.00	.0	.00	.00	.00	--	.00	.00	.00	.00

01473150 - PERKIOMEN CK AT OAKS, PA. (LAT 40 08 06 LONG 075 26 36)

DATE	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)
DEC , 1978										
19...	.00	.0	.00	.00	.00	--	.00	.00	.00	.00

01473152 - SCHUYLKILL R NEAR VALLEY FORGE, PA. (LAT 40 06 53 LONG 075 28 16)

DATE	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)
DEC , 1978										
19...	.00	.0	.00	.00	.00	--	.00	.00	.00	.00

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SCHUYLKILL RIVER BASIN--Continued

DATE	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
01470759 - MAIDEN CREEK AT WILEYS BRIDGE NEAR TEMPLE, PA (LAT 40 26 21 LONG 075 55 37)										
SEP , 1979 06...	.00	.00	--	.00	--	.00	--	0	9	19
06...	.00	.00	--	.00	--	.00	--	0	28	135
07...	.00	.00	--	.00	--	.00	--	0	9	26
01470764 - MAIDEN CREEK NEAR LEESPORT, PA (LAT 40 25 28 LONG 075 56 40)										
DEC , 1978 19...	.00	.00	--	.00	--	.00	--	0	--	--
01470771 - BERNHART RUN AT READING, PA. (LAT 40 22 18 LONG 075 55 12)										
JUN , 1979 26...	--	--	--	--	--	--	--	--	--	--
01471519 - WYOMISSING CRK AT MUSEUM RD., WEST READING, PA (LAT 40 19 37 LONG 075 56 58)										
AUG , 1979 12...	.00	.00	.00	--	.00	.00	.00	0	41	7.9
SEP 06...	.00	.00	--	.00	--	.00	--	0	94	28
06...	.00	.00	--	.00	--	.00	--	0	67	25
22...	.00	.00	--	.00	--	.00	--	0	32	3.5
01471540 - ANGELICA CREEK AT READING, PA (LAT 40 18 36 LONG 075 55 22)										
AUG , 1979 12...	.00	.00	.00	--	.00	.00	.00	0	16	1.1
SEP 06...	.00	.00	--	.00	--	.00	--	0	57	7.4
01471680 - SCHUYLKILL R AT MONOCACY STA NR BIRDSBORO, PA. (LAT 40 15 31 LONG 075 46 08)										
DEC , 1978 19...	.00	.00	--	.00	--	.00	--	0	--	--
01472120 - SCHUYLKILL R AT BL ROCK POOL NR PHOENIXVILLE PA. (LAT 40 09 46 LONG 075 30 33)										
DEC , 1978 19...	.00	.00	--	.00	--	.00	--	0	--	--
01472161 - FRENCH CREEK AT PHOENIXVILLE, PA. (LAT 40 08 07 LONG 075 31 05)										
SEP , 1979 06...	.00	.00	--	.00	--	.00	--	0	207	615
01472191 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33 LONG 075 31 42)										
DEC , 1978 19...	.00	.00	--	.00	--	.00	--	0	--	--
01473150 - PERKIOMEN CR AT OAKS, PA. (LAT 40 08 06 LONG 075 26 36)										
DEC , 1978 19...	.00	.00	--	.00	--	.00	--	0	--	--
01473152 - SCHUYLKILL R NEAR VALLEY FORGE, PA. (LAT 40 06 53 LONG 075 28 16)										
DEC , 1978 19...	.00	.00	--	.00	--	.00	--	0	--	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
SCHUYLKILL RIVER BASIN--Continued										
01473170 - VALLEY CRK AT WILSON ROAD NEAR VALLEY FORGE, PA (LAT 40 04 53 LONG 075 27 25)										
SEP , 1979 06...	0900	240	238	7.8	23.0	--	2	--	--	33
01473193 - SCHUYLKILL RIVER AT PORT KENNEDY, PA (LAT 40 06 27 LONG 075 25 16)										
SEP , 1979 06...	1400	15400	267	7.1	25.0	--	2	--	--	44
01473470 - STONY CREEK AT STERIGER STREET AT NORRISTOWN (LAT 40 07 38 LONG 075 20 43)										
SEP , 1979 06...	1100	220	165	7.4	23.5	--	2	--	--	7
01473500 - SCHUYLKILL R AT NORRISTOWN, PA. (LAT 40 06 40 LONG 075 20 50)										
DEC , 1978 18...	1605	--	335	7.4	4.5	2	--	10	0	--
01473695 - PLYMOUTH CREEK NEAR CONSHOHOCKEN, PA (LAT 40 05 31 LONG 075 18 42)										
JUN , 1979 27...	0945	--	--	--	--	--	0	--	--	4

DATE	COPPER, DISSOLVED (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCB, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)
01473170 - VALLEY CRK AT WILSON ROAD NEAR VALLEY FORGE, PA (LAT 40 04 53 LONG 075 27 25)										
SEP , 1979 06...	--	51	--	--	18	110	--	.00	.4	.00
01473193 - SCHUYLKILL RIVER AT PORT KENNEDY, PA (LAT 40 06 27 LONG 075 25 16)										
SEP , 1979 06...	--	65	--	--	35	180	--	1.0	.0	.00
01473470 - STONY CREEK AT STERIGER STREET AT NORRISTOWN (LAT 40 07 38 LONG 075 20 43)										
SEP , 1979 06...	--	15	--	--	5	20	--	.00	.0	.00
01473500 - SCHUYLKILL R AT NORRISTOWN, PA. (LAT 40 06 40 LONG 075 20 50)										
DEC , 1978 18...	7	--	110	<.5	--	--	120	.00	.0	.00
01473695 - PLYMOUTH CREEK NEAR CONSHOHOCKEN, PA (LAT 40 05 31 LONG 075 18 42)										
JUN , 1979 27...	--	1	--	--	--	30	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)
SCHUYLKILL RIVER BASIN--Continued										
01473170 - VALLEY CRK AT WILSON ROAD NEAR VALLEY FORGE, PA (LAT 40 04 53 LONG 075 27 25)										
SEP , 1979 06...	.00	.0	.00	.00	.00	--	.00	.00	.00	.00
01473193 - SCHUYLKILL RIVER AT PORT KENNEDY, PA (LAT 40 06 27 LONG 075 25 16)										
SEP , 1979 06...	.00	.0	.00	.00	.00	--	.00	.00	.00	.00
01473470 - STONY CREEK AT STERIGER STREET AT NORRISTOWN (LAT 40 07 30 LONG 075 20 43)										
SEP , 1979 06...	.00	.0	.00	.00	.00	--	.00	.00	.00	.00
01473500 - SCHUYLKILL R AT NORRISTOWN, PA. (LAT 40 06 40 LONG 075 20 50)										
DEC , 1978 18...	.00	.0	.00	.00	.00	--	.00	.00	.00	.00
01473695 - PLYMOUTH CREEK NEAR CONSHOHOCKEN, PA (LAT 40 05 31 LONG 075 18 42)										
JUN , 1979 27...	--	--	--	--	--	--	--	--	--	--

DATE	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
01473170 - VALLEY CRK AT WILSON ROAD NEAR VALLEY FORGE, PA (LAT 40 04 53 LONG 075 27 25)										
SEP , 1979 06...	.00	.00	--	.00	--	.00	--	0	861	550
01473193 - SCHUYLKILL RIVER AT PORT KENNEDY, PA (LAT 40 06 27 LONG 075 25 16)										
SEP , 1979 06...	.00	.00	--	.00	--	.00	--	0	792	12900
01473470 - STONY CREEK AT STERIGER STREET AT NORRISTOWN (LAT 40 07 30 LONG 075 20 43)										
SEP , 1979 06...	.00	.00	--	.00	--	.00	--	0	114	60
01473500 - SCHUYLKILL R AT NORRISTOWN, PA. (LAT 40 06 40 LONG 075 20 50)										
DEC , 1978 18...	.00	.00	--	.00	--	.00	--	0	--	--
01473695 - PLYMOUTH CREEK NEAR CONSHOHOCKEN, PA (LAT 40 05 31 LONG 075 18 42)										
JUN , 1979 27...	--	--	--	--	--	--	--	--	--	--

BERKS COUNTY

402615075530501. Local number, BE 623.

LOCATION.--Lat 40°26'15", long 75°53'05", Hydrologic Unit 02040203, at Wesner Road, Blandon.
Owner: Maiden Creek Township Water Authority
AQUIFER.--Dolomite of Leithsville Formation of Lower and Middle Cambrian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in (20 cm), depth 385 ft (117 m), casing information not available.
DATUM.--Altitude of land-surface datum is 430 ft (131 m). Measuring point: Top of casing, 1.30 ft (40 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--January 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 116.56 ft (35.53 m) below land-surface datum, Mar. 20, 1979; lowest, 137.49 ft (41.91 m) below land-surface datum, Nov. 5, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	132.41	134.53	---	---	121.46	119.50	119.07	120.96	122.54	127.00	130.32	132.80
10	132.76	134.87	---	---	121.60	117.61	119.94	121.60	123.02	127.55	130.80	132.12
15	133.17	135.13	---	---	---	116.71	119.66	122.45	123.90	128.27	131.23	132.48
20	133.50	135.35	---	---	---	116.56	119.88	123.02	124.81	128.91	131.60	132.78
25	133.80	---	135.66	127.47	123.56	117.15	120.15	122.88	125.68	129.39	132.03	131.88
EOM	134.17	---	---	123.10	122.25	118.33	120.51	122.41	126.14	129.85	132.49	131.84
MAX	134.23	135.41	135.92	129.22	123.80	121.72	120.51	123.39	126.14	129.85	132.49	132.80

WTR YR 1979 MEAN 126.87 HIGH 116.56 MAR 20 LOW 135.92 DEC 22 AND OTHERS

BUCKS COUNTY

402643075150501. Local number, BK 929.

LOCATION.--Lat 40°26'43", long 75°15'05", Hydrologic Unit 02040105, at Nockamixon State Park.
Owner: U. S. Geological Survey.
AQUIFER.--Shale of Brunswick Formation of Upper Triassic age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 116 ft (35.4 m), cased to 27 ft (8.2 m), open hole.
DATUM.--Altitude of land-surface datum is 460 ft (140 m). Measuring point: Top of casing, 1.05 ft (32 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--November 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 42.72 ft (13.02 m) below land-surface datum, Jan. 28, 1979; lowest, 59.75 ft (18.21 m) below land-surface datum, Nov. 26, 1968.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	46.05	47.38	46.56	44.68	43.55	43.81	43.53	43.37	43.42	45.89	47.47	48.34
10	46.52	47.69	46.20	44.01	44.08	43.36	43.75	43.62	43.87	46.07	47.65	48.30
15	46.64	47.83	45.39	44.01	44.10	43.58	43.06	44.15	44.37	46.61	47.78	48.10
20	46.89	48.02	45.13	43.80	44.85	43.23	43.31	44.41	44.92	46.90	47.76	48.16
25	47.15	47.49	44.06	42.82	44.71	43.11	43.34	43.89	---	47.03	47.88	47.70
EOM	47.55	47.36	45.02	43.05	44.40	43.65	43.44	43.75	45.14	47.27	48.11	46.88
MAX	47.77	48.02	47.43	44.72	45.11	44.37	43.88	44.53	45.27	47.27	48.11	48.34

WTR YR 1979 MEAN 45.47 HIGH 42.72 JAN 28 LOW 48.34 SEP 5

CARBON COUNTY

410123075425401. Local number, CB 104.

LOCATION.--Lat 41°01'23", long 75°42'54", Hydrologic Unit 02040106, at Hickory Run State Park.
Owner: U. S. Geological Survey.
AQUIFER.--Shale of Lower Member of Mauch Chunk Formation of Upper Mississippian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 125 ft (38.1 m), cased to 20 ft (6.1 m), open hole.
DATUM.--Altitude of land-surface datum is 1,290 ft (393 m). Measuring point: Top of casing, 3.00 ft (91 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--September 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.10 ft (6.43 m) below land-surface datum Dec. 28, 1974; lowest, 83.51 ft (25.45 m) below land-surface datum, Nov. 8, 1972.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	81.46	82.45	79.30	29.02	31.40	28.20	40.05	35.90	33.50	60.06	72.18	70.76
10	81.92	82.60	73.35	24.97	37.78	25.42	39.69	39.57	40.23	62.69	72.88	---
15	82.36	82.82	---	29.70	---	29.59	35.16	33.20	45.29	65.14	70.87	---
20	82.35	83.00	52.42	34.90	47.00	34.60	36.40	36.00	49.71	67.30	68.88	---
25	82.40	82.25	49.39	27.03	49.67	38.72	40.68	28.19	---	69.14	69.31	---
EOM	82.52	80.83	43.98	25.19	33.99	37.87	34.56	27.37	56.75	71.28	69.94	37.93
MAX	82.53	83.61	80.63	43.91	49.88	38.72	41.83	39.57	56.75	71.28	73.18	70.76

WTR YR 1979 MEAN 53.33 HIGH 23.48 MAY 27 LOW 83.01 NOV 19

CHESTER COUNTY

395450075485401. Local number, CH 10.

LOCATION.--Lat 39°54'50", long 75°48'54", Hydrologic Unit 02040205, at Route 841 and Route 82, Doe Run.
Owner: Robert J. Kleberg, Jr.
AQUIFER.--Cockeysville Marble of Paleozoic age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in (15 cm), depth 34 ft (10.4 [illegible] casing information not available.
DATUM.--Altitude of land-surface datum is 300 ft (91 m). Measuring point: Top of casing, 1.00 ft (30 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--August 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.28 ft (2.52 m) below land-surface datum, March 30, 1958; lowest, 16.22 ft (4.94 m) below land-surface datum, Nov. 3, 1963.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER, 1979
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.11	13.62	13.34	10.62	10.53	10.43	11.51	12.03	11.66	13.04	13.65	13.48
10	13.24	13.72	---	9.90	10.98	10.41	11.55	12.23	11.90	13.16	13.75	12.01
15	13.32	13.82	11.69	---	11.28	10.69	11.38	12.34	12.20	13.31	13.65	12.32
20	13.35	13.80	12.04	10.91	11.55	10.99	11.62	12.48	12.51	13.45	13.79	12.62
25	13.42	13.82	11.80	9.27	10.81	11.14	11.71	11.83	12.71	13.52	13.87	10.41
EOM	13.53	13.75	11.59	9.83	10.27	11.46	11.81	11.92	12.88	13.64	13.34	10.95
MAX	13.53	13.86	13.56	11.58	11.56	11.46	11.81	12.65	12.88	13.64	13.87	13.49

WTR YR 1979 MEAN 12.22 HIGH 9.27 JAN 25 LOW 13.87 AUG 25 AND OTHERS

DELAWARE COUNTY

395040075341801. Local number, DE 3.

LOCATION.--Lat 39°50'40", long 75°34'18", Hydrologic Unit 02040205, at Birmingham Township.
Owner: Mrs. Hope W. Ebert
AQUIFER.--Gneiss of Wissahickon Formation (age uncertain, Lower Paleozoic to Precambrian).
WELL CHARACTERISTICS.--Dug unused water-table well, diameter 42 in (107 cm), depth 22 ft (6.7 m), cased with stone.
DATUM.--Altitude of land-surface datum is 260 ft (79 m). Measuring point: Top of concrete base, 1.8 ft (55 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--June 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.90 ft (2.41 m) below land-surface datum, Aug. 22, 1955; lowest measured, dry many times since 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	15.00	DEC 4	16.53	FEB 5	11.15	APR 2	13.15	JUN 4	13.38	AUG 6	15.80
9	15.26	11	15.68	12	12.35	9	13.46	11	12.92	13	16.03
16	15.44	18	14.83	19	13.03	16	13.45	18	13.23	20	16.25
23	15.63	25	14.14	26	10.92	23	13.38	25	13.80	27	16.46
30	15.83	JAN 1	13.49	MAR 5	10.23	30	13.54	JUL 2	14.24	SEP 3	16.63
NOV 6	15.99	8	11.69	12	10.85	MAY 7	13.63	9	14.64	10	16.60
13	16.15	15	10.90	19	11.90	14	13.82	16	14.97	17	16.71
20	16.31	22	10.66	26	12.59	21	14.08	23	15.28	24	16.64
27	16.46	29	9.11			28	13.83	30	15.55		

WTR YR 1979 HIGH 8.63 JAN 27 LOW 16.74 SEP 21

LACKAWANNA COUNTY

411310075375501. Local number, LK 4.

LOCATION.--Lat 41°13'10", long 75°37'55", Hydrologic Unit 02040106, at Lackawanna State Forest.
Owner: Commonwealth of Pennsylvania.
AQUIFER.--Shale and sandstone of Catskill Formation of Upper Devonian age.
WELL CHARACTERISTICS.--Dug unused water-table well, diameter 36 in (91 cm), depth 10 ft (3.0 m).
DATUM.--Altitude of land-surface datum is 1,910 (582 m). Measuring point: Wooden cover, 0.4 ft (12 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--June 1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.40 ft (43 cm) below land-surface datum, June 29, 1973; lowest measured, dry, October, November 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	3.59	DEC 1	3.61	FEB 16	3.78	APR 1	3.43	JUN 1	3.40	AUG 10	5.08
13	3.67	11	3.38	MAR 2	3.22	16	3.27	8	3.56	23	4.75
NOV 3	4.59	22	3.50	9	3.38	26	3.55	JUL 6	3.80	SEP 7	3.75
14	3.68	JAN 2	1.50	16	3.54	MAY 4	3.28	19	4.17	17	3.47
--	----	12	3.57	23	3.62	21	3.43	30	4.29	--	----
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WTR YR 1979 HIGH 1.50 JAN 2 LOW 5.08 AUG 10

LEBANON COUNTY

402207076180801. Local number, LB 372.

LOCATION.--Lat 40°22'07", long 76°18'08", Hydrologic Unit 02040203, at Myerstown.
Owner: Kohl Brothers, Inc.
AQUIFER.--Dolomite of Ontelaunee Formation of Middle Ordovician age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in (15 cm), depth 80 ft (24.4 m), casing information not available, open hole.
DATUM.--Altitude of land-surface datum is 444 ft (135 m). Measuring point: Top of casing, 3.5 ft (1.07 m) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--July 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.02 ft (1.23 m) below land-surface datum, Jan. 27, 1976; lowest, 10.51 ft (3.20 m) below land-surface datum, Nov. 27, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.59	10.02	10.05	7.56	6.90	6.53	7.20	8.08	8.19	8.85	9.41	9.98
10	9.62	10.15	9.22	6.90	7.33	6.63	7.34	8.36	8.29	8.93	9.64	9.26
15	9.52	10.22	9.63	7.40	7.70	6.87	7.31	8.49	8.54	9.04	9.65	9.40
20	9.78	10.21	9.85	7.82	7.95	7.13	7.63	8.51	8.67	9.20	9.76	9.74
25	9.89	10.15	8.49	4.13	4.88	7.21	7.86	8.08	8.58	9.40	9.80	8.87
EOM	10.01	10.08	8.91	6.57	5.38	7.63	7.95	8.09	8.75	9.38	9.91	9.22
MAX	10.01	10.25	10.20	8.75	7.97	7.63	7.95	8.65	8.81	9.45	9.91	9.98

WTR YR 1979 MEAN 8.57 HIGH 4.13 JAN 25 LOW 10.25 NOV 22

LEHIGH COUNTY

403429075392401. Local number, LE 644.

LOCATION.--Lat 40°34'29", long 75°39'24", Hydrologic Unit 02040106, at Haafsville.
Owner: Charles J. Haaf.
AQUIFER.--Beekmantown Group of Middle Ordovician age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 10 in (25 cm), depth 184 ft (56.1 m), cased to 63 ft (19.2 m), open hole.
DATUM.--Altitude of land-surface datum is 470 ft (143 m). Measuring point: Top of plywood cover, 1.45 ft (44 cm) above land-surface datum.
REMARKS.--Water-quality records for 1973-75 are available in files of district office.
PERIOD OF RECORD.--January 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.65 ft (11.17 m) below land-surface datum, June 27, 1972; lowest, 93.42 ft (28.47 m) below land-surface datum, Feb. 6, 1971.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	60.59	65.30	69.23	61.53	46.92	45.09	47.05	47.76	48.53	53.76	57.99	62.71
10	61.24	66.31	68.83	57.61	47.81	44.52	47.28	---	48.95	54.57	58.99	62.17
15	61.98	67.13	68.52	56.42	48.60	44.38	46.68	49.37	49.78	55.71	59.13	62.50
20	62.90	67.75	68.50	56.48	49.77	44.60	46.94	50.05	51.03	56.04	59.65	63.40
25	63.65	68.06	68.04	51.38	49.32	45.18	47.34	49.28	51.78	56.98	60.75	60.21
EOM	64.64	68.74	67.01	46.41	46.10	46.41	47.50	48.47	52.88	57.45	62.08	59.88
MAX	64.64	68.74	69.62	66.78	50.34	46.54	47.50	50.54	52.88	57.57	62.08	63.40

WTR YR 1979 MEAN 56.06 HIGH 44.13 MAR 14 LOW 69.62 DEC 9

LEHIGH COUNTY

403226075343001. Local number, LE 860.

LOCATION.--Lat 40°32'26", long 75°34'30", Hydrologic Unit 02040106, at Lower Macungie Township.
Owner: Paul Knepper.
AQUIFER: Dolomite of Allentown Formation of Upper Cambrian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 100 ft (30.5 m), cased to 58 ft (17.7 m), open hole.
DATUM.--Altitude of land-surface datum is 358 ft (109 m). Measuring point: Top of casing, 2.00 ft (61 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--June 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.26 ft (8 cm) below land-surface datum, Jan. 27, 1978; lowest 10.46 ft (3.19 m) below land-surface datum, July 23, 1969.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.46	---	6.53	4.25	3.14	2.72	3.77	4.14	3.67	4.60	4.98	5.67
10	5.55	---	6.03	3.60	3.50	2.96	3.76	4.31	3.87	4.77	5.17	5.15
15	5.66	---	6.04	3.85	3.75	3.23	3.68	4.42	4.06	4.85	5.12	5.32
20	5.74	---	6.15	4.08	3.97	3.48	3.89	4.42	4.24	4.61	5.23	5.55
25	5.79	6.53	6.14	.90	2.35	3.55	4.06	3.47	4.39	4.85	5.38	4.74
EOM	5.93	6.60	5.91	2.56	2.10	3.82	4.01	3.51	4.45	4.76	5.55	4.93
MAX	5.93	6.63	6.64	5.91	4.03	3.82	4.07	4.52	4.45	4.99	5.55	5.67

WTR YR 1979 MEAN 4.53 HIGH .90 JAN 25 LOW 6.64 DEC 3

MONROE COUNTY

411223075234901. Local number, MO 190.

LOCATION.--Lat 41°12'23", long 75°23'49", Hydrologic Unit 02040106, at Tobyhanna State Park.
Owner: U. S. Geological Survey.
AQUIFER.--Sandstone of Catskill Formation of Upper Devonian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 98 ft (29.9 m), cased to 59 ft (17.9 m), open hole.
DATUM.--Altitude of land-surface datum is 1,960 ft (597 m). Measuring point: Top of plywood cover, 2.57 ft (78 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--October 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.01 ft (2.14 m) below land-surface datum, May 18, 1978; lowest, 15.55 ft (4.74 m) below land-surface datum, Oct. 5, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.55	14.74	13.88	10.27	9.22	8.64	8.36	8.32	8.85	11.04	12.21	12.99
10	15.17	14.80	13.23	8.89	9.83	7.98	8.63	---	9.28	11.39	12.58	11.26
15	14.95	14.86	12.69	9.34	10.21	8.27	8.00	---	9.74	11.86	12.30	10.84
20	14.81	14.57	12.52	9.62	10.65	8.56	8.72	8.84	10.46	11.11	12.52	10.78
25	14.80	14.32	12.18	7.76	10.35	7.93	9.17	7.64	10.99	11.41	12.68	9.26
EOM	14.71	14.20	12.20	8.42	9.38	8.16	8.08	7.97	11.04	11.74	12.92	9.43
MAX	15.55	14.87	14.23	12.15	10.86	9.24	9.17	8.84	11.21	11.86	12.92	13.02

WTR YR 1979 MEAN 11.06 HIGH 7.54 MAY 26 LOW 15.55 OCT 5

MONTGOMERY COUNTY

400808075210401. Local number, MG 225.

LOCATION.--Lat 49°08'08", long 75°21'04", Hydrologic Unit 02040203, at Willow and Locust Streets, Norristown. Owner: Norristown State Hospital.
AQUIFER.--Sandstone of Stockton Formation of Upper Triassic age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in (30 cm), depth 300 ft (91.4 m), casing information not available.
DATUM.--Altitude of land-surface datum is 165 ft (50 m). Measuring point: Top of casing, 0.75 ft (23 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--September 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.96 ft (3.65 m) below land-surface datum, Jan. 27, 1978; lowest, 60.25 ft (18.36 m) below land-surface datum, Nov. 5, 6, 1963.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.77	23.64	23.91	16.05	16.08	14.86	17.72	18.08	16.06	19.45	---	21.92
10	22.18	24.03	20.27	13.85	17.13	14.56	17.77	18.64	16.67	20.16	20.58	19.47
15	22.57	---	18.88	14.45	17.93	15.49	17.06	19.25	16.70	20.89	---	19.54
20	22.75	---	19.00	---	18.90	16.25	16.99	18.92	17.46	21.21	22.02	19.94
25	22.94	24.59	18.58	15.54	17.02	16.54	17.51	15.86	18.21	20.81	21.09	17.34
EOM	23.34	24.45	18.06	15.03	13.94	17.27	17.63	15.89	18.69	---	21.36	17.70
MAX	23.36	24.74	24.31	21.88	19.01	17.27	17.99	19.55	18.69	21.39	22.02	21.92

WTR YR 1979 MEAN 18.96 HIGH 13.79 FEB 27 LOW 24.74 NOV 28

MONTGOMERY COUNTY

401310075181702. Local number, MG 884.

LOCATION.--Lat 40°13'10", long 75°18'17", Hydrologic Unit 02040203, at Upper Gwyned Township, near West Point. Owner: Merck, Charp, and Dohme, Inc.
AQUIFER.--Shale of Brunswick Formation of Upper Triassic age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in (30 cm) to 10 in (25 cm), depth 600 ft (183 m), casing information not available.
DATUM.--Altitude of land-surface datum is 351 ft (107 m). Measuring point: Top of casing, 1.30 ft (40 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--March 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 38.40 ft (11.70 m) below land-surface datum, June 30, 1972; lowest, 93.17 ft (28.40 m) below land-surface datum, Oct. 20, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	66.48						---	64.72	63.27	64.02	66.14	65.99
10	67.02						---	64.68	63.23	64.48	66.28	65.96
15	67.77						---	64.78	63.29	65.23	66.20	66.19
20	---						---	64.80	63.29	65.66	66.00	66.40
25	---						65.13	64.24	63.49	65.77	66.09	65.98
EOM	---						64.83	63.78	63.70	65.91	66.28	65.61
MAX	67.81						65.13	64.92	63.73	65.92	66.36	66.40

WTR YR 1979 MEAN 65.21 HIGH 63.06 JUN 17 LOW 67.81 OCT 16

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

NORTHAMPTON COUNTY

403618075203801. Local number, NP 85.

LOCATION.--Lat 40°36'18", long 75°20'38", Hydrologic Unit 02040106, at Bethlehem.
Owner: City of Bethlehem.
AQUIFER.--Dolomite of Leithsville Formation of Lower and Middle Cambrian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 12 in (30 cm), depth 344 ft (105 m), cased to 73 ft (22.3 m), open hole.
DATUM.--Altitude of land-surface datum is 230 ft (70 m). Measuring point: Top of casing, 1.00 ft (30 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--July 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.33 ft (10 cm) below land-surface datum, Sep. 24, 1975; lowest measured, 3.99 ft (1.22 m) below land-surface datum, Feb. 19, 1971.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.41	3.49	2.74	2.73	2.59	2.13	2.58	3.07	3.09	3.27	3.25	3.47
10	---	3.51	2.62	2.38	---	2.26	2.58	3.19	3.12	3.38	3.37	3.15
15	---	3.52	3.27	2.83	---	2.37	2.54	3.21	3.05	3.13	3.15	3.30
20	---	3.49	3.40	3.10	---	2.62	2.96	3.15	3.19	3.11	3.25	3.46
25	3.48	3.48	2.74	.87	.88	2.50	---	1.82	---	3.27	3.35	3.02
EOM	3.48	3.22	3.34	2.31	1.49	2.97	2.91	2.89	3.24	2.87	3.49	3.23
MAX	3.49	3.52	3.41	3.14	3.24	2.97	3.99	3.25	3.28	3.41	3.49	3.51

WTR YR 1979 MEAN 2.99 HIGH .53 FEB 26 LOW 3.52 NOV 15 AND OTHERS

PHILADELPHIA COUNTY

395342075102101. Local number, PH 12.

LOCATION.--Lat 39°53'42", long 75°10'21", Hydrologic Unit 02040202, at Barracks and East Fourth Streets, Philadelphia. Owner: U. S. Naval Base.
AQUIFER.--Sand of Raritan Formation ("middle aquifer") of Upper Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 in (20 cm), depth 104 ft (31.7 m), cased to 94 ft (28.7 m), screened 94-104 ft (28.6-31.7 m).
DATUM.--Altitude of land-surface datum is 8.64 ft (2.63 m). Measuring point: Top of casing, 1.80 ft (55 cm) above land-surface datum.
REMARKS.--Mean daily fluctuation caused by tidal loading, 0.20 ft (6 cm).
PERIOD OF RECORD.--January 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.34 ft (4.68 m) below land-surface datum, Jan. 25, 1979 lowest, 39.60 ft (12.07 m) below land-surface datum, July 20, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.01	16.87	16.62	16.99	16.67	15.96	15.42	16.24	15.73	16.03	16.39	17.95
10	17.36	16.97	17.15	16.74	16.79	15.91	15.63	15.38	15.72	15.92	16.86	18.05
15	17.29	16.95	16.82	16.79	16.48	16.69	15.45	16.48	15.79	16.11	17.37	18.09
20	17.37	17.09	16.83	16.30	16.78	16.11	15.99	16.17	15.87	16.10	17.42	18.41
25	17.26	16.66	16.57	15.34	16.30	15.59	16.05	15.74	15.85	15.93	17.63	18.25
EOM	17.24	16.57	17.02	16.07	16.06	15.87	16.02	16.31	15.50	16.00	17.86	18.14
MAX	17.57	17.09	17.33	17.04	17.25	16.75	16.10	16.66	16.23	16.13	17.86	18.41

WTR YR 1979 MEAN 16.61 HIGH 15.34 JAN 25 LOW 18.41 SEP 20

SCHUYLKILL COUNTY

404708076070701. Local number, SC 296.

LOCATION.--Lat 40°47'08", long 76°07'07", Hydrologic Unit 02040203, at Locust Lake State Park.
Owner: U. S. Geological Survey.
AQUIFER.--Mauch Chunk Formation of Lower Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 242 ft (73.8 m), cased to 40 ft (12.2 m), open hole.
DATUM.--Altitude of land-sruface datum is 1,290 ft (393 m). Measuring point: Top of casing, 2.30 ft (70 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--July 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 33.16 ft (10.11 m) below land-surface datum, Mar. 28, 1978; lowest, 54.60 ft (16.64 m) below land-surface datum. Sept. 16, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MAXIMUM VALUES .

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	51.11	49.20	46.26			---	43.32	44.50	---	47.75	50.42	51.24
10	51.06	49.69	42.47			---	42.05	45.59	---	48.44	50.72	---
15	47.58	50.20	42.23			---	41.93	46.22	---	48.98	50.43	---
20	48.32	48.72	44.43			---	43.28	46.52	---	49.46	50.72	---
25	48.37	48.45	45.95			42.72	44.97	---	---	49.64	50.59	---
EOM	48.67	48.47	46.34			44.06	44.54	---	46.98	49.90	51.25	43.43
MAX	51.21	50.29	48.35			44.06	45.37	46.89	48.08	50.03	51.25	51.32

WTR YR 1979 MEAN 47.40 HIGH 41.93 APR 15 LOW 51.32 SEP 2

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

WAYNE COUNTY

414333075153201. Local number, WN 64.

LOCATION.--Lat 41°43'33", long 75°15'32", Hydrologic Unit 02040103, at State Game Land Number 159.
Owner: U. S. Geological Survey.
AQUIFER.--Sand and gravel of Glacial Outwash of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 52 ft (15.8 m), cased to 52 ft (15.8 m), open end.
DATUM.--Altitude of land-surface datum is 1,330 ft (405 m). Measuring point: Top of plywood cover, 2.57 ft (78 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--October 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.88 ft (2.40 m) below land-surface datum, Nov. 17, 1972; lowest, 32.33 ft (9.85 m) below land-surface datum, Oct. 7, 1968.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.62	31.14	30.66	28.34	27.77	27.71	26.32	25.51	26.14	29.93	31.09	31.62
10	31.54	31.15	30.15	27.77	28.25	26.86	26.40	25.94	27.30	30.20	31.24	31.46
15	31.45	31.14	---	27.95	28.59	26.96	25.70	27.01	28.28	30.45	31.28	31.50
20	31.35	31.08	---	28.02	29.02	26.81	26.00	27.75	28.94	30.63	31.38	31.57
25	31.34	31.05	29.25	26.96	29.07	26.12	26.63	27.40	29.32	30.77	31.47	31.42
EOM	31.19	30.84	29.28	27.33	28.54	26.35	25.74	25.40	29.65	30.98	31.55	31.45
MAX	31.64	31.17	30.83	29.24	29.19	28.40	26.64	28.01	29.65	30.98	31.55	31.62

WTR YR 1979 MEAN 29.12 HIGH 25.40 MAY 31 LOW 31.64 OCT 3 AND OTHERS

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October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons